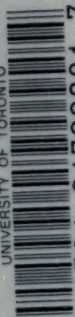



UNIVERSITY OF TORONTO



3 1761 01799201 7

CONCENTRATION AND
CONTROL
SOLUTION OF THE TRUST PROBLEM
IN THE UNITED STATES
CHARLES R. VAN HISE



Digitized by the Internet Archive
in 2007 with funding from
Microsoft Corporation

CONCENTRATION AND CONTROL

A SOLUTION OF THE TRUST PROBLEM IN THE
UNITED STATES



THE MACMILLAN COMPANY

NEW YORK • BOSTON • CHICAGO
DALLAS • SAN FRANCISCO

MACMILLAN & CO., LIMITED

LONDON • BOMBAY • CALCUTTA
MELBOURNE

THE MACMILLAN CO. OF CANADA, LTD.

TORONTO

2555c
CONCENTRATION AND CONTROL

A SOLUTION OF THE TRUST PROBLEM
IN THE UNITED STATES

BY

CHARLES R. VAN HISE

AUTHOR OF "CONSERVATION OF NATURAL RESOURCES
IN THE UNITED STATES," ETC.

142301
21/4/17

New York
THE MACMILLAN COMPANY

1912

All rights reserved

COPYRIGHT, 1912,

By THE MACMILLAN COMPANY.

Set up and electrotyped. Published May, 1912.

Norwood Press
J. S. Cushing Co. — Berwick & Smith Co.
Norwood, Mass., U.S.A.

PREFACE

THIS book is one of opportunism. Its aim is to present an outline picture of the situation regarding concentration of industry in the United States, and to suggest a way to gain its economic advantages and at the same time to guard the interests of the public. The book is written because this is the most pressing problem now before the people and before Congress and state legislatures. No other problem is likely to have so large discussion in the political campaign now waging. If this book has the good fate to assist in the rule of enlightenment, reason, fair play, mutual consideration, and toleration, and thus advance the solution of the problem, the author will have been repaid many fold for his labor in its preparation.

The scope of the treatment does not include the public utilities. They are only considered in so far as their development and control throw light upon the other industries.

The reader who is familiar with trust literature will recognize the influence of Ely's "Monopolies and Trusts," Jenks's "The Trust Problem," von Halle's "Trusts or Industrial Combinations of the United States," Ripley's "Trusts, Pools, and Corporations," Montague's "Trusts of To-day," Nolan's "Combinations, Trusts, and Monopolies," Collier's "Trusts," Wyman's "Control of the Market," and Macrosty's "Trust Movement in British Industry."

Aside from these standard works, the most important sources of information in presenting a picture of the situation as it is at the present time are the special reports on manufactures in 1905 by the Census Office, reports of the Commissioner of Corporations upon Standard Oil, tobacco, steel, beef, lumber, and water powers, and the hearings and reports before the committees of the Sixty-second Congress. Especially important in this connection have been the hearings before the United

States Senate Interstate Commerce Committee, the report of Mr. Hardick for the special Committee of the House of Representatives to investigate the Sugar Refining Industry, and the reports of the House Committee of Investigation for the United States Steel Corporation.

Further, I had the opportunity to see the manuscript of a book now published by Dr. Charles McCarthy, upon "The Wisconsin Idea," from which I have taken material concerning the situation in that state. Professor T. K. Urdahl has prepared for insertion a summary account of the steel combinations of Germany. Professor Richard T. Ely and Professor Urdahl have kindly read the manuscript and made many suggestions of value to me. Professor E. A. Gilmore has done the same for the chapter upon the law regarding coöperation. To these men I am especially indebted. Also I have had many valuable suggestions from other members of the staff of the University of Wisconsin in the departments of political science, political economy, history, and sociology. Finally, a number of the students in that university, under the direction of Mr. W. I. King, have given me important assistance in looking up decisions and summarizing material along special lines; these are S. A. Barrett, W. K. Braasch, Harlow Brown, F. A. Buechel, N. B. Bunin, W. H. Butt, J. S. Josiassen, J. C. Pritzlaff, John Schmidt, R. A. Weir, E. E. Witte.

No one has a keener realization than the author of the imperfections of the volume, but since the policies of the nation concerning concentration are now under consideration by the people, promptness in publication seems to be more important than completeness of statement. In preparing the book, it has been the purpose to put in a small volume the information which is essential to reach a sound conclusion regarding the handling of the great problem of concentrations of industry, both in the way of legislation and administration. Following a statement of facts, the conclusions of the author are given in these matters, and it is hoped that these may appeal to the judgment of the reader. However, even if the conclusions are not followed in all respects, it is still hoped that the summary of facts bearing on the problem of concentration may be helpful.

The material published in the magazines and newspapers, even much of the testimony before the committees of Congress, shows a lamentable lack of comprehension of the facts involved in concentration of industry, and in many cases conclusions are presented without taking into account more than a very small part of the facts. It is hoped that a brief and clear presentation of the more important factors of the problem may help in leading to logical thinking, and thus assist in reaching a consensus of opinion which may finally result in sound remedial legislation.

CHARLES R. VAN HISE.

THE UNIVERSITY OF WISCONSIN,
April, 1912.

TABLE OF CONTENTS

	PAGE
PREFACE	V
INTRODUCTION :	
The Self-sufficient Community	2
The Civil War and Concentration	4
The Development of Transportation and Communication	4
CHAPTER I	
THE GENERAL FACTS REGARDING CONCENTRATION	
SECTION 1—THE ECONOMIC ADVANTAGES OF CONCENTRATION	8
(1) The Handling of Material	8
(2) The Use of Machinery and Departments	9
(3) Subdivision of Labor	9
(4) Integration	9
(5) Parallel Consolidation and Specialization	10
(6) Saving By-products	11
(7) Consolidation of Allied Industries	12
(8) Keeping Establishments up to Date	12
(9) Investigating Departments	13
(10) Business Advantages of Concentration	14
(11) Opportunities for High Order of Ability	16
(12) Other Advantages of Concentration	17
Total Advantages of Concentration	17
SECTION 2—THE CAUSES OF CONCENTRATION	21
(1) The Limited Liability Corporation	21
(2) The Protective Tariff	21
(3) Railway Rebates and Drawbacks	22
(4) Local Underselling	23
(5) Patents	24
(6) Manufacturers' Rebates	24
General Statements	24
SECTION 3—THE PURPOSES OF CONCENTRATION	25
(1) Elimination of Competition	26
(2) Regulation of Output and Division of Business and Territory	26
(3) Maintenance of Prices	27
(4) Profits of Promoters	27

	PAGE
SECTION 4—THE KINDS OF BUSINESS MOST LIKELY TO BECOME CONCENTRATED	31
SECTION 5—THE EXTENT OF CONCENTRATION	34
Concentration in Management Greater than Concentration in Plants	35
Statistics confined to Factory Systems	35
Localization of Industries	35
Concentration in Representative Industries	36
General Statements	58
SECTION 6—FORMS OF ORGANIZATIONS	60
(1) Informal or Formal Associations for the General Protec- tion or Advancement of a Business	60
(2) Formal Agreements	64
(3) Trusts	68
(4) Holding Corporations	69
(5) Complete Merger	71
General Statements	71
SECTION 7—THE KINDS OF COMPETITION	72
(1) Competition in Quality	72
(2) Competition in Price	74
(3) Competition in Service	75
SECTION 8—THE BREAK-DOWN OF COMPETITION	76
The Faith in Competition	76
The Failure of Competition adequately to regulate Quality	76
The Failure of Competition adequately to regulate Price	78
General Statements	83
SECTION 9—THE WASTES OF COMPETITION	88
(1) Expense of Salesmen	88
(2) Expense of Advertising	89
(3) Competition and Conservation	89
The Consumer pays for the Wastes of Competition	97
Wastes of Competition drive to Combination	97
Ruin or Combination	99

CHAPTER II

SOME IMPORTANT ILLUSTRATIONS OF CONCEN- TRATION

SECTION 1—THE MICHIGAN SALT COMPANY	101
SECTION 2—THE STANDARD OIL COMPANY	104
The Rise of the Company	104
The Monopolistic Position of the Company	105

TABLE OF CONTENTS

xi

	PAGE
Margins and Profits	108
Price Discriminations	109
Excessive Profits	109
Summary of Evils	110
SECTION 3—THE UNITED STATES STEEL CORPORATION	111
Early Consolidations	111
Causes of Consolidation	112
Organization of the Corporation	113
Overcapitalization	115
Earnings	117
Proportion of Business	119
Cost of Production	120
The Value of Iron Ore	129
Practices of the Corporation	132
The Efficiency of the Corporation	134
Relative Efficiency of Large and Small Steel Companies	136
Relative Efficiency of the Large Steel Companies	138
Summary of Evils	140
SECTION 4—THE AMERICAN TOBACCO COMPANY	140
History of Company	140
Overcapitalization	142
Illegitimate Competition	143
International Combination	143
Expansion into Allied Businesses	144
Concentration of Manufacture	144
Excessive Profits	145
Monopoly and Competition	146
Summary of Evils	147
SECTION 5—THE AMERICAN SUGAR REFINING COMPANY	147
Commanding Position of the Company	147
Increase in Margins	148
Price of Raw Material	148
Capitalization	149
Excessive Profits	149
Evils Illustrated	149
SECTION 6—THE MEAT-PACKING INDUSTRY	150
The "Big Six"	150
Capitalization and Profits	152
Principles Illustrated	153
SECTION 7—THE LUMBER INDUSTRY	154
The General Situation	154

	PAGE
Concentrated Ownership of Timber	156
Rising Prices	159
SECTION 8—THE WATER POWERS	160
Amount and Distribution	160
Concentration of Ownership	162
Public Control	164

CHAPTER III

THE LAWS REGARDING COÖPERATION

SECTION 1—ENGLAND	167
SECTION 2—THE UNITED STATES	170
SECTION 3—THE SHERMAN ANTITRUST LAW	174
The Standard Oil Company	181
The American Tobacco Company	183
The DuPont Powder Company	187
Dissolution by Mutual Agreement	187
Other Corporations under Attack	189
General Statements	191
SECTION 4—STATE LEGISLATION AGAINST TRUSTS	192
The Statute Laws	192
Decisions under the Statutes	197
General Statements	200

CHAPTER IV

THE SITUATION IN OTHER COUNTRIES

SECTION 1—ENGLAND	203
SECTION 2—GERMANY	206
The German Steel Combine	207
The Potash Industry	218
SECTION 3—AUSTRIA	219
SECTION 4—FRANCE	220
SECTION 5—GENERAL STATEMENTS	221
SECTION 6—INTERNATIONAL COMBINATIONS	222

CHAPTER V

REMEDIES

SECTION 1—SPECIFICATIONS TO BE MET	225
Minimum Specifications	231

TABLE OF CONTENTS

xiii

	PAGE
SECTION 2—COMMISSION CONTROL OF PUBLIC UTILITIES	233
Early Commissions	234
The Wisconsin Commission	236
The Interstate Commerce Commission	238
General Statements	242
SECTION 3—PURE FOOD AND DRUG LAWS	244
SECTION 4—THE CREATION OF TRADE COMMISSIONS	248
SECTION 5—PROPOSED MINIMUM AMENDMENTS TO ANTITRUST LAWS	249
(1) Business of a Public Interest	249
(2) Coöperation Reasonable	250
(3) Competition to remain Free	252
(4) Unfair Practices should be Prohibited	252
General Statements	252
SECTION 6—FURTHER EXTENSION OF POWER OF COMMISSIONS	254
(1) Publicity Required	255
(2) Regulation of Prices	255
(3) Conservation Enforced	262
(4) Good Social Conditions Securable	263
(5) Fair Wages Realizable	264
(6) Control of Capitalization	265
(7) Delimitations of Powers of State and Nation	265
General Statements	265
SECTION 7—OTHER PLANS FOR AMENDMENT TO SHERMAN ANTI-TRUST LAW	266
SECTION 8—PATENT MONOPOLY	268
SECTION 9—POSSIBLE OBJECTIONS TO PLAN OF REGULATION PROPOSED	270
SECTION 10—CONCLUSION	277
APPENDIX—THE SHERMAN ANTITRUST LAW	279

CONCENTRATION AND CONTROL

INTRODUCTION

THE history of industry in the United States may be divided into two great periods, that antecedent to the Civil War of 1861-1865, and that following this conflict. In the years preceding the Civil War the Middle West became settled. A few railroads had crept as far west as the Mississippi River. The large cities east of that great north-south water thoroughfare were thus connected. The railroads were wide apart; their efficiency as compared with present times was small. West of the Mississippi River the population was sparse. That part of the country was still in its frontier stage, with the exception of portions of California and Oregon.

The Civil War divides two industrial periods.

Under the conditions above given many small manufactories had grown up to meet the needs of the communities in which they existed. Indeed manufacture in a small way had begun in the eastern cities before the end of the eighteenth century.

During the first half of the nineteenth century there was steady and slow expansion of manufacture, not mainly by increasing the size of plants which already existed, but by the multiplication of plants wherever a clientele was found in the township, county, or district. Thus in the Middle West during these times almost every community had its gristmill run by the power of the adjacent creek or small river. Similarly there were many small plants for the smelting of iron. For the most part these were located adjacent to small banks of iron ore, and especially in districts where coal and limestone were near at hand to serve for fuel and flux. The great drift to the cities had not yet begun, and a large proportion of the population was rural, 87.5 per cent in 1850, and 83.9 per cent in 1860.

THE SELF-SUFFICIENT COMMUNITY

The farmer in the sparsely settled districts of the Middle West was largely self-sufficient. For heat he cut his own wood. He raised his own wheat and corn, took the same to the adjacent mill and returned, after paying proper toll, with flour and corn meal for his family and bran for his stock. He raised and killed his own meat; in the winter he had fresh meat; in the summer, salt pork and corned beef. As a matter of course each farmer raised his own vegetables; he had cows which furnished him with milk, butter, and perhaps cheese; he had his poultry yard, which might include chickens, geese, and ducks. The farmer of the North produced his own wool and many had a crop of flax. In the South cotton was the staple for textiles. In the earlier part of the nineteenth century the wool was cleaned and carded at the house, but at a little later stage of development was taken to a factory in the adjacent small town to be cleaned and made into rolls ready for spinning. The equipment of the farmer's house included the spinning wheel and often the loom. With spinning wheel the wool and flax were made into yarn or thread to be later transformed into stockings, mittens, or cloth. The home loom produced either somewhat coarse cloth or carpets. Cotton very early found its way to the factories, which before the Civil War were largely located along the streams of New England. The village or town contained a shoemaker, whose raw material frequently came from leather supplied by the farmer. In a town of a few thousand inhabitants, there was likely to be a small agricultural implement factory.

Not every farmstead would have all of the equipment indicated, but all would be found in the neighborhood; and by barter among the farmers, or trade between the farmers and the villagers, the chief necessities not produced at home were supplied.

The articles not produced in a community were mainly those which are relatively light as compared with their value, sugar, tea, coffee, starch, tobacco, and cloth-cotton or woolen.

These were the staples which the farmer purchased from the sales of a part of his wheat or other crop.

From the above, it is apparent that each community of fair size was essentially self-sufficient; and this was true without reference to the different parts of the United States, although there were differences as to the approach to completeness of the self-sufficient character of the community, the approach to this situation being nearer in the North than in the South. A city, and in many cases a county, if cut off from the rest of the world would have gotten along without any special hardship. Some luxuries and conveniences would have been missed, but no far-reaching change would have been made in the habits of the community.

The situation above described has now ceased to exist for the United States, with the exception of those communities which, isolated by natural barriers, have been left behind in the industrial movement. Some such communities have remained nearly as they were a hundred years ago, not affected by the great stream of progress which has moved past them. In the coves of the Great Smoky Mountains to-day may be found essentially the situation described, and that not more than twenty or thirty miles from a city of considerable size, for instance, Cades and Tuckaleeche coves, a short distance east of Knoxville. In one of those coves, only a few years ago, I saw upon the porch of a little cabin the complete change from wool to stockings going on at the same time, one of the three daughters carding the wool, the second spinning it into hard yarn, and the third knitting it into stockings. What is true for the coves in this country still obtains for great regions in less-developed countries. For instance, in Brazil, in the province of Minas Geraes, the people are substantially self-sufficient. The articles which they raise are not the same as those produced in the United States. Their products are beans, bananas, other fruits, tobacco, coffee, etc. In the district are still running many small bloomeries for the manufacture of iron, the most primitive type known to man. From the blooms are wrought iron for rods, nails, horseshoes, etc. The walls

Self-suffi-
cient com-
munities
still exist.

of the houses are constructed of a lacework of poles between which mud is filled in, and the roof is of tile burned from clay close at hand.

THE CIVIL WAR AND CONCENTRATION

In the United States, before the Civil War, industry was dispersed, the shops and factories being small; indeed, every farm to a considerable extent was a shop and factory. In any community the shops and factories mainly supplied the needs of the people.

The Civil War, the most gigantic strife which to that time had existed among men, required that things be done on a great scale. More than a million and a half of men were in the field at one time from the North and the South together. The North built up the greatest navy that the world had then seen. The great armies required similar equipment for more than a million men, — a million blankets, a million muskets, etc. The artillery required great quantities of iron, and the newly devised monitors more. Metal was used upon a scale never before approached in this country. Above all, the million men must be fed. Thus as a result of the demands of civil strife the large manufactory grew up especially adapted to producing the materials and munitions of war. These supplies must be transported to serve a vast and shifting army.

But even more important than the great factory was the training of many thousands of men, both South and North, to do things in a large way through the use of a multitude of men, in order that a given big result might be reached at a definite time and place.

One of the most far-reaching effects of the Civil War was the acceleration of concentration under the tremendous necessity to do things on a great scale.

THE DEVELOPMENT OF TRANSPORTATION AND COMMUNICATION

Beginning with the Civil War the period of concentration in industry was on; but a condition precedent to its full

The Civil War demanded large scale operations.

growth was the development of transportation and communication.

Following the Civil War came the time of great railway building. The increase in the number of miles of railway in the United States by decades from 1850 to 1910 and the percentages of increase per decade are shown by the following table:—

TABLE 1. RAILWAY EXTENSION BY DECADES SINCE 1850¹

YEAR	MILES	PER CENT
1850-1860	89,012 to 36,626	306.0
1860-1870	36,626 to 52,922	44.4
1870-1880	52,922 to 93,262	76.3
1880-1890	93,262 to 166,703	78.7
1890-1900	166,703 to 194,262	16.4
1900-1909	194,262 to 238,356	22.6

Concurrently with the expansion of the railways was the extension of the telegraph lines, and finally, with the centennial exhibition in 1876, came the telephone. When the Union Pacific Railroad was completed in 1869, it was thought to be a mighty achievement; and it was accomplished only through liberal, indeed extravagant, federal grants and guaranties. At the present time there are six continental roads stretching from the Mississippi to the Pacific coast. Also the increase in the railway mileage east of the Mississippi has gone on with accelerating speed.

Thus the country is now linked together by agencies of transportation and communication. A large proportion of the population lives within a half dozen miles from a railway; it is only in the sparsely settled sections of the country that a railway is ten or twenty miles distant. Railway speeds and weights have been increased. A few trains move passengers and the more valuable freight a thousand miles in twenty-four hours. A single train with one locomotive may carry five thousand tons of iron ore. The telegraph and the telephone make communication instantaneous.

Railways
everywhere.

¹ Poor's "Manual of Railroads," 1910.

Decreasing
freights.

The freight and passenger rates have steadily fallen. In 1864, the charge on a bushel of wheat, in carload lots, from Chicago to New York, was from 48 to 96 cents; in 1902, 7.8 to 9.6 cents, one sixth to one tenth as much. The heavier, cheaper products, such as coal and iron ore are transported in great quantities at a cost of about one fifth of a cent per ton mile, and the rates for such commodities at various places are less than one half a cent a ton mile. It may cost the farmer who lives twenty miles from a railroad more to get his wheat to the station than it does from the railroad point to the central market.

It is not meant to imply that the railways are the only means of transportation, although from the present point of view they are dominant

Navigable
streams.

Before railways existed, navigable streams furnished means of communication and transportation for commodities heavy and light for those communities which were fortunate enough to be thus reached. Thus there grew up in the early part of the nineteenth century a great traffic upon the Mississippi, Ohio, and upon many other rivers of smaller size. The Great Lakes furnished cheap transportation from Buffalo to Chicago and the head of Lake Superior. Inevitably, settlement and development proceeded much more rapidly along the naturally navigable waters than elsewhere. But even where the conditions were most favorable, navigable waters furnished transportation facilities to only a small part of the country, and for that part at a very low speed.

The vanish-
ing water
traffic.

The next stage in transportation development was the system of canals. The Erie Canal connected the Hudson and the Great Lakes. Many other less important canals were built. But even at best the construction of canals was expensive; the transportation of materials upon them slow; and only a small part of the country was ever reached by them. With the era of railroad development, canals began to wane. Many of them were acquired by railroad companies and put out of commission. Upon the Mississippi itself, through the acquisition of terminals, purchasing boat lines, cutting rates, refusing to prorate, etc. the railroad companies have reduced

river transportation above St. Louis almost to a negligible quantity.

The country as a whole, even at the present time, has very few good highways. Only a few sections of the country have well-made roads. Before the Civil War, and locally since, until our own time, toll roads have connected some of the great cities. Upon the toll and free public roads wheel vehicles move; but before the automobile appeared speeds were limited to ten miles per hour, and quantities to a few tons per load. Consequently, by 1875 railroads had a leading place in transportation in this country, and they are now dominant.

It is not meant to imply that the development of transportation went on without concentration of industry taking place at the same time. Naturally there was action and reaction between them. Without concentration of industry and, consequently, large amounts of goods to ship, the railroads would not have developed so rapidly; and on the other hand, without the development of transportation and communication, concentration of industry would have been impossible.

The development of transportation and communication furnished the fundamental basis for concentration of industry, because through them it became possible at a moderate cost to transport goods long distances in a short time and easy to communicate with the customer who desired goods. As soon as the freight rates became sufficiently low so that the advantages of concentration were greater than the cost of freight and doing business at a distance, the small concerns began to suffer in competition with the large manufactory.

My treatment of the subject of concentration and control will be divided into five chapters: I, The General Facts regarding Concentration; II, Some Important Illustrations of Concentration; III, The Laws Regarding Coöperation; IV, The Situation in Other Countries; and V, Remedies.

Transportation and concentration.

CHAPTER I

THE GENERAL FACTS REGARDING CONCENTRATION

THE general facts regarding concentration of industry will be considered under the sections: 1, The economic advantages of concentration; 2, The causes of concentration; 3, The purposes of concentration; 4, The kinds of business most likely to become concentrated; 5, The extent of concentration; 6, The forms of organization; 7, The kinds of competition; 8, The break-down of competition; 9, The wastes of competition.

SECTION 1

THE ECONOMIC ADVANTAGES OF CONCENTRATION

What are the economic advantages of manufacturing in a large plant and doing business on a large scale, and how important are they? Different industries differ among themselves very greatly in these respects, and any general statement will need modification when applied to a particular case. What is said will be more applicable to those groups of industries which are better adapted for concentration.

(1) *The Handling of Material.* — The handling of material on a large scale in itself gives great economy. In any manufactory the material must be there assembled. For instance, if it be an iron manufactory, and we have a primitive bloomery depending upon an adjacent bank of ore, it will not pay to go to any great expense in providing for transportation of the ore to the bloomery; and the ore will be hauled in a cart. When the bloomery changes to the blast furnace, the quantity of ore needed will be so great that the ore is brought with trams or some kind of mechanical haulage. The same is

true of the coal. Thus the economies due to mere magnitude of operation in this industry become very great. Also in the manufacturing process itself the large furnace has an advantage in economy of fuel and efficiency over the small furnace.

(2) *The Use of Machinery and Departments.* — In the large manufactory it is possible to use machinery to an extent not possible in the small establishment. The introduction of labor-saving machines is well known to be one of the greatest causes of economic efficiency. The illustration of the cotton gin is classic. Where there are many processes in the manufacture of an article, if the concern be a large one, it is possible to have a separate machine or a number of them for each process.

Similarly for different departments. In making agricultural implements, if the plant be a large one, the iron and wood departments will be separate. These again will be specialized for different lines of work. The parts of iron and wood will be assembled in another department; and finally the painting and varnishing will be done in still another.

(3) *Subdivision of Labor.* — In most manufactories an article must go through many processes before it is completed. In the old primitive shop, the shoemaker at the bench did all of the different stages of work in making the entire shoe. In the large manufactory the part that any one man does has been steadily lessened until now in the making of a single shoe many persons participate. In the making of a wagon or a binder in a large manufactory scores of people take part. In the wagon shop which served the country community one man, or one man with his helper, made the wagon in all its parts except that the iron in bars or rods was furnished to him. Specialization of labor is only possible in the large manufactory, and it is generally agreed that such specialization gives increased efficiency.

(4) *Integration.* — A further step in the development of concentration of industry is its integration; that is, a corporation handles not one stage of manufacture only, but a number or even all of the stages from the raw material to the

finished product. This again gives increased economy and efficiency, because all the different units of the integrated industry are in harmony, one with reference to the other. Thus the United States Steel Corporation mines its raw materials, assembles them, smelts the ore into pig iron, changes the iron to steel, and the steel into structural forms, — plate, wire, or nail. Other illustrations of integrated industries are oil, sugar, etc., described pp. 104–150.

While there is great economic advantage in integration for almost every industry, that of iron and steel furnishes one of the best illustrations. When the blast furnace was independent of the converter, the molten pig iron was allowed to cool, and was melted for the Bessemer converter. The steel from the converter was again allowed to cool in the ingot and was reheated before rolling into the rail. At the present time the molten pig iron goes to the converter, is transformed into steel, and then after solidification but before cooling goes to the rolls where it is wrought into rails. Similar methods are introduced for other products. The saving of energy by integration is great, as is also the saving in labor. Independent blast furnaces, Bessemer converters, and rolling mills cannot possibly give the economic efficiency of integrated establishments combining the three.

(5) *Parallel Consolidation and Specialization.* — The concentration of management goes not only to the point of the manufacture on a large scale, integration, and saving of by-products, but extends to the point of ownership of manufactories of the same general kinds at various points. Under these conditions it is possible to make the same product at the different plants, or to specialize the different manufactories under the same organization so that one shall handle one line of work, and another another. Further, the work of any one branch may become standardized and require comparatively little shifting or changing of machines. Thus the shapes, forms, and sizes of the manufactured iron which comes from a given plant may remain the same month after month, or even year after year; and this very greatly promotes efficiency. If the industry be tobacco, one manufac-

tory may produce cigarettes, and another cigars. A proof of the superior efficiency of completely equipped concerns is fully admitted in the case of tobacco, as is shown by the objections filed by Messrs. Brandeis and Levy against the plan of disintegration of the American Tobacco Company (see pp. 183-187). As counsels for the independent companies they say that no independent tobacco company is now completely equipped to do tobacco business covering all the main branches of the tobacco trade, and that any plan to restore competition will be ineffective which does not compel each of the elements of the disintegrated tobacco company to confine itself to one line of business. They state: "It follows that any corporation taking over a part of the plug tobacco business or smoking tobacco business of the trust shall not take over any of the cigarette or cigar business; that a corporation taking over a part of its cigarette business shall not take over any of its smoking tobacco business, plug tobacco business, or cigar business; and that a corporation taking over any part of the cigar business shall not take over any of its smoking tobacco business, plug tobacco business, or cigarette business."¹ There can scarcely be stronger evidence of the economic efficiency of parallel consolidation and specialization under a single corporation than the above remonstrance of Messrs. Brandeis and Levy upon behalf of the independent tobacco companies.

The consolidation in management of plants making the same class of products at different points is especially economical for those articles in which transportation is an important factor. Cross freights are avoided to a large extent when the manufactories of one district supply the markets of that district. For articles which are heavy as compared with their cost, for instance salt and steel rails, this factor may be one of controlling importance.

(6) *Saving By-products.* — A further advantage of magnitude is the use of by-products. The small manufactory

¹ Hearings before the Committee on Interstate Commerce United States Senate, Part VII, p. 319.

cannot spend much money in such utilization, although the coarser of them may be saved. In the production of meat, the by-products,—hides, fat, bone, etc. are a very important part of the income. These materials are much more largely utilized in the large abattoir than in the small slaughter-house.

For the great oil refiners, if kerosene be regarded as the chief, as it was the original product, then lubricating oil and gasoline are by-products. Also in addition to these scores of other by-products are saved. In fact for all chemical and metallurgical industries by-products are the source of a large part of the profits. But to save these materials economically requires large scale manufacture.

(7) *Consolidation of Allied Industries.* — The final stage in consolidation is the union of allied and connected industries. This frequently goes beyond integration, in that the lines of manufacture are absorbed which use as raw material the by-products of the central organization. Thus the United States Steel Corporation has begun the manufacture of cement, using slag, a by-product of the blast furnace, for that purpose; but the manufacture of cement is itself a great industry which requires a large and expensive plant, and slag is therefore a by-product which it is not possible to save except in plants of great magnitude.

The big beef firms have entered lines of business related to their own. Those having refrigerator cars have begun the transportation of fruit. They are largely interested in the stockyards. In order to use the by-products the packing house companies have formed fertilizer companies, soap companies, glue companies, curled hair companies, and felt companies; all of which industries are large users of materials furnished by the packing industry.

(8) *Keeping Establishments Up to Date.* — The large company uses only the most modern manufactories which have complete and highly efficient machinery and practices, including the latest labor-saving devices and the best technical improvements. The weak company will frequently continue to use an inadequate plant because it has not and cannot get sufficient capital to put its plant into an up-to-date

condition. The American Sugar Refining Company after organization built one large new plant fully equipped with the most modern machinery, simply as a safeguard in case of increased demand or stoppage of other factories. Shortly after it abandoned altogether a number of refineries acquired at the time of consolidation, because of their inefficient equipment or disadvantageous location, or both.

(9) *Investigating Departments.* — Not only is the large organization able to use the most modern methods, but it is able to have an investigating department in order that discoveries may be made for still further improvements. The economies which have come from such a department are strongly emphasized by many men connected with great organizations. The Cotton Oil Company has an experiment station. The Standard Oil Company carries on chemical investigations of the most elaborate and extensive kind in order to utilize fully the by-products of the oil; as a result of which they have on the market some three hundred by-products, many of which come from the part of the oil which otherwise would have been thrown away.¹ The United States Steel Corporation, the General Electric Company, and indeed practically all great organizations have investigating departments in which large sums of money are spent.

Mr. Louis Brandeis,² who is strongly opposed to the existence of large concentrations, recognizes the economic advantage of investigative departments to be so great as to threaten the practicability of retaining relatively small industrial units under the competitive system; this is shown by the fact that he urges that all investigations which are necessary for the advancement of applied science should be carried on by the government. Apparently, he does not realize the enormous expense that this proposal, if taken seriously, would entail. Says Mr. Brandeis, "Whenever industry requires for its advance investigations of the character which are so expensive that only a huge concern can assume

¹ Ernst von Halle, "Trusts or Industrial Combinations in the United States," pp. 66-67.

² Hearings before the United States Senate Committee on Interstate Commerce, Part XVI, p. 1169.

the burden, then it is the government's function to secure the information for all the people."

In favor of this position he cites the investigations by the government for the farmer. This illustration seems scarcely applicable, since the most distinctive feature of the farmer's business is the vast number of those following it and the average smallness of a single holding of land. Because of this the individual farmer is wholly incapable of carrying on the necessary investigations. Hence the government, national and state, has undertaken the function. The proposal of Mr. Brandeis, if carried to its logical conclusion, would blot out, or at least profoundly modify, our patent system, under which discoverers are protected to the extent of monopolistic use for a limited period. No stronger testimony than the proposal of Mr. Brandeis could be given as to the economic advantage of concentration of industry gained through investigating departments.

(10) *Business Advantages of Concentration.* — Thus far the industrial advantages of concentration only have been given. Upon the business side there are also great economies. Some of the more important of these are as follows: —

(a) Big organizations are able to buy in large quantities and thus gain the advantages of the lowest rates of purchase.

(b) Big organizations are able to sell in large quantities and most advantageously. A large part of the cost of business under new conditions is the marketing of products. In the marketing there are great costs in commercial travelers, in advertisements, etc. (see p. 89). With the large concentration the advertising cost per unit of sale is much lower than with the small industry. Work is organized so that a traveling salesman or agent does the work in a given community for a large concern instead of several for the different plants of that concern. When the American Steel Hoop and Wire Company was formed, about two hundred salesmen were discharged. Similarly with the formation of the whisky combination three hundred salesmen were spared. With the organization of the International Harvester Company the expense of marketing was reduced by \$500,000 a year.

(c) When there is a single great federated establishment, orders can be received at a central office and from that office distributed to the different plants as best required by efficiency in manufacture, taking into account the expense of transportation.

(d) Also the mere size of an establishment, so that it may be able to take a large order at almost any time and fill it promptly, gives a great advantage over smaller concerns.

(e) For entering foreign trade the business economies of concentration are undoubtedly very great. Sending agents to foreign countries to build up a trade for an industry is an expensive undertaking. Especially is this the case when the markets are already in the possession of foreign competitors. In this respect the great corporations of the country, such as the United States Steel Corporation and Standard Oil Company, have proved themselves to be economically superior to smaller organizations, more than 90 per cent of the export business in their respective lines being done by United States Steel and Standard Oil. Moreover, the foreign trade in iron and oil has been almost wholly built up since the organization of the steel combination and the Standard Oil Company.

Foreign
trade and
concentra-
tion.

(f) The losses through poor debts are less with large organizations than with small ones. Frequently where there are many organizations having keen competition with a large number of travelling salesmen, sales are made without careful reference to the ability of the purchaser to pay. To illustrate, it is stated that after the American Steel and Wire Company was formed, the loss from bad debts for the constituent companies was reduced from one half of one per cent to one twentyfifth of one per cent.¹

(g) One of the greatest advantages of concentration with coöperation of the independent units is the regulation of production. As we shall see in other connections, with the competitive system, underproduction alternates with overbuilding and overproduction. Where instead of fierce competition there is coöperation (and this is only possible where there are large units), the great losses are avoided which re-

Regulation
of output.

¹ "Trusts of To-day," G. H. Montague, p. 43.

sult from investments of capital in manufactories which run only a portion of the time and before they shut down produce more goods than can be sold at a profit.

(h) Another advantage of concentration is that a less amount of capital is necessary in order to handle a combined business than would be necessary if a great organization were subdivided. If a concern be fairly independent of the banks and the necessity to pay excessive rates of interest, it must keep a considerable amount of ready cash on hand to handle its business. A very large concern, in which the variation in the demands for the different products compensate for one another to some extent at least, is able to handle its business with a relatively small cash reserve. This is one of the advantages which the United States Steel Corporation has had since its organization. By keeping from \$50,000,000 to \$75,000,000 in cash, a very large amount as a whole, but rather small as compared with its total business, the corporation has always had sufficient money on hand to meet its needs without borrowing, and therefore has been independent of the banks at times of financial depression.

(11) *Opportunity for High Order of Ability.* — It may be that a final advantage of concentration will be the opportunity for the display of ability of the highest order. A farmer who can successfully run a dairy with twenty cows may fail with a hundred. A man who can handle a single manufactory may be unable to see the broader comparative aspects of a dozen. The manager of each factory will be required as before; but also there will be needed the man who, while giving large liberty to the individual manager, will see the work of the whole in its broader relations. Concentration of industry will demand the highest and best trained intellect along all lines.

Says Macrosty¹: "Rule of thumb is dead in the workshop, the day is with the engineer and the chemist with their methods of precision; in the countinghouse and board room there is no longer a place for the huckster or gambler, the future is with the commercial statesman whether in a large individual business or a combination."

¹ "The Trust Movement in British Industry," H. W. Macrosty, p. 337.

(12) *Other Advantages of Concentration.* — Other advantages of concentration are frequently claimed. Among these are: steady employment of labor, better wages, better protection against industrial accidents, the maintenance of superior quality, etc. These points are not here introduced as advantages of concentration, since in reference to them there is a marked difference of opinion. In some cases it appears that concentration of industry has led to the steadier employment of labor, improvement in wages, and lessening of industrial accidents. In other cases the great industrial corporations have been careless or openly regardless of the conditions of the laboring population, and instead of improvement there has been no improvement or even retrogression. Theoretically the advantages mentioned should be possible with concentration, and under proper control they should become available; but they cannot be claimed as general advantages of the great corporations as they now exist. (See pp. 104–154.)

Wages and
social condi-
tions.

Total Advantages of Concentration. — It is not easy to give the economic advantages in terms of percentages for any industry which result from the large factory, the subdivision of labor, the full use of mechanical appliances, the specialization of departments, integration, utilization of by-products, entrance into allied industries, distribution of plants of the same kind, using only the most efficient plants, maintenance of investigating departments, economies of business management, and reduction of amount of capital; but it is safe to say that the gain is very great for the large concentration as compared with the small plant.

While percentages cannot be given, the economic advantages of concentration have been conclusively proved for many consolidations. Thus under the competitive system some businesses became greatly overbuilt, as, for instance, whisky distilling. At the time consolidation took place when the whisky trust was organized, it was found advantageous to concentrate the business in a few plants. It closed 68 of its 80 distilleries, doing the entire business of the country with the remaining 12, furnishing

Evidence of
economies.

the same output, and in a short time even an increased output. Von Halle¹ mentions as evidences of efficiency that the cotton oil trust shortly after its formation closed more than a dozen of the small old-fashioned plants. The sugar trust after formation was able to supply the whole market with one fourth of its refineries. According to the census of 1900, many of its plants were idle. Under one of the pool arrangements in steel the Carnegie Company paid to a Maryland company which did not operate at all \$300,000, this sum being paid to close the mill; but the form was gone through of having the orders come to this mill while the rails were supplied by the Carnegie Company. It was more economical to close the mill and pay \$300,000 than to produce the rails in the smaller mill.²

Without further development of the economic gain of concentration, it is evident that the advantages are so great as to enable the large organizations to pay the freights to markets that are not local and to pay the expenses of marketing products at a distance. Thus transportation once developed, concentration became inevitable. As already indicated the two have acted and reacted; for once a market secured at a distance, freight and passenger service improved so as further to encourage the development of concentration, which in turn further assisted transportation, and so on continuously.

The small manufactory in the little town, except for specialities and patent-protected articles, has either disappeared for the most part under the stress of competition, or else by combination has become a unit of a larger organization. The larger proportion of the small manufactories of standard and widely used articles have been discontinued; but an occasional concern has been saved by becoming a part of a combination. Those whose years number fifty have seen the gristmill on the small stream become intermittent in its running, then cease altogether, although here and there one favorably located still continues its small business. The many widely dispersed

Small manu-
factories
disappear-
ing.

¹ Von Halle, *Trusts*, pp. 65-66.

² *Ibid*, pp. 62-63.

small furnaces for smelting iron ore have gone, and their place is taken by the relatively few great blast furnaces. No longer is the spinning wheel or the loom found in the house. The work has gone to the great factory located where labor is available and adjacent to some stream which furnishes adequate power, or where coal is sufficiently cheap so as to furnish energy at a reasonable rate. The shoemaker of the village has become the cobbler, the shoes are manufactured at great industrial centers, such as Boston and vicinity.

The concentration of industry during the past fifty years has been one of the chief factors which has led to the phenomenal growth of the cities, the inevitable centers for manufacture because of their transportational facilities and the abundance of labor. Thus Chicago, at the head of Lake Michigan, having cheap water transportation to all lake ports, and the center of the greatest railroad system in the world, has become a colossus among the manufacturing cities of the nation. The same is true of New York, the gate of the continent, and the great group of cities which cluster about that harbor. Boston and Philadelphia are centers less in importance only to the two mentioned.

Growth of cities and concentration.

While it seems clear that the above statement regarding the economic advantages of concentration cannot be gainsaid, there may be a limit beyond which additional economic advantages may not occur from further increase in magnitude or from federation of great establishments. Also in some industries in this country the concentration and federation may have gone beyond the stage of magnitude which does give economic advantage. This point of view has been strongly presented by Mr. Louis D. Brandeis.¹ Mr. Brandeis mentions a number of trusts which have been financial failures. He states that since the United States Steel Corporation was organized our foreign trade in iron has increased but slightly in ten years, from 1,114,000 tons to 1,533,000 tons; whereas the German foreign tonnage has increased during that time from 838,000 to 4,868,000; and that of the

Magnitude and efficiency.

¹ Hearings before the Interstate Commerce Committee, United States Senate, Part XVI, pp. 1146-1166.

United Kingdom from 2,213,000 to 4,419,000. On the other hand, he gives illustrations of manufactories in which the business is fairly competitive, as that of book paper, in which there has been a steady increase in efficiency and decline in price. Unfortunately the illustrations given do not prove the general case. Had the Standard Oil or American Tobacco companies been considered, instead of United States Steel, an immense expansion of foreign trade could have been shown.

Further, the question of prices is not the one under discussion at the present time; the question concerns the cost of production. It will be held in another place that the prices charged by the great organizations have been too high and that they should be lowered. Furthermore, if we consider only the cost of production we have dealt with but one half of the problem. As has been seen, the economic advantages which come from concentration are largely those on the business side of the enterprise, buying, selling, finance, etc. Therefore, the problem for consideration is not the cost of production at the factory, but the cost at which a given article can be placed upon the market.

Taking the entire problem into account, it is believed future quantitative investigations will show that concentration must go far in order to give the maximum of efficiency, although it is not held that it should go to the extent that the element of monopoly enters. If the public be able to secure a price based upon investment instead of capitalization, or what the traffic will bear, it is believed the price in most cases will be sufficiently low to justify the existing concentrations.

While it seems to the author that the weight of argument is strongly in favor of the increased efficiency of very large concentrations of industry upon the average, the opinions of Mr. Brandeis have been brought forward to show that this view is not universally accepted. The position which one holds at the present time for most industries must depend upon qualitative statements, since there have been few investigations of the cost accounting in the same industry for different magnitudes, and under similar conditions.

SECTION 2

CAUSES OF CONCENTRATION

Thus far only the inevitable and legitimate causes which have led to concentration have been considered. There are in addition very important promoting causes of concentration about the legitimacy of which there will be difference of opinion.

(1) *The Limited Liability Corporation.* — The first of these is the rise of the modern limited liability corporation. Before the Civil War an occasional manufactory had a capital of a million or even two million dollars. These concerns were usually partnerships rather than joint stock companies. The general corporation act of New York was passed in 1848. Similar acts were later passed in other states. These laws were taken little advantage of until after the Civil War. The limited liability company gives immensely greater opportunities in the way of magnitude than the partnership. The owner of stock in such a company is not responsible for the debts of the company beyond his investment in the stock. A partnership at best is limited to a few; the owners of a corporation may be thousands or even many thousands; thus even relatively small individual holdings may make possible a large capitalization. A corporation which would have been regarded as large before the Civil War may have the majority of the stock in holdings of \$10,000 or less. In fact it is not too much to say that without the device of the modern limited liability corporation, it would not have been possible to unite the enormous capital necessary for the great industrial combination under the control of a small group of men, the officers and directors of a corporation.

(2) *The Protective Tariff.* — The second of the promoting factors is the tariff. It has been the policy of the United States to develop its industries and place a tariff upon foreign goods sufficient to protect the American manufacturer. The theory upon which such tariff has been based has varied from time to time. First, it was to protect the infant industry. The Republican party, still defending a protective

tariff, has now come to the principle that the tariff should be sufficient to compensate for the difference of labor cost at home and abroad. The Democratic party stands by the position that the tariff should be for revenue only. It will scarcely be held by any one familiar with the situation that either party, when responsible for change, has framed the tariff in accordance with the theory held. Whatever views one has regarding the tariff, it will be conceded by all competent persons that the tariff on many articles has been more than sufficient to pay the differences of cost of labor at home and abroad; that it has been greater than necessary to give the maximum revenue; and thus has afforded a margin beyond either of these principles to protect the home manufacturer. This has made possible a development of concentration in industry which might not otherwise have occurred. Not only so, but the high tariff, often prohibitive, has enabled the manufacturer to sell commodities at home as high as the tariff permitted and the markets would bear, and to dispose of his surplus in the foreign markets at a lower rate. This practice has been so common that no detailed evidence regarding it is needed, but one or two illustrations may be mentioned. The Steel Corporation sells its products abroad to meet the world's markets at a lower rate than the same articles are sold for at home where the freight is lower. Steel rails from the great steel companies of the United States cost the railway companies of Canada less than do the same kind of rails the companies of the United States.¹ As shown on another page, a similar situation obtained for Standard Oil, that article having been sold in the markets of various parts of the world at a much lower rate than in America, when transportation charges are taken into consideration. (See p. 108). The same situation has obtained to a large extent with respect to agricultural implements.

(3) *Railway Rebates and Drawbacks.* — Another important cause for the development of concentration in the past

¹ Hearings, House Committee of Investigation, Steel Corporation, No. 57, p. 5135.

has been secret arrangements between the railroad companies and manufacturing corporations under which rebates were given.

The published rates applied to the small or weak manufactory. Many large concerns in various lines of industry received rebates greater or less in quantity, and frequently so great as to make it possible for the large manufactory to sell at a profit; whereas the weaker competitor, obliged to pay the published tariff, could sell only at a loss. This practice was common before the interstate commerce law was passed in 1887, and has only ceased within a few years. It has had powerful influence in the concentration of industry, since the rebates were usually larger the stronger the corporation; and hence a strong impetus toward concentration.

Perhaps the best illustration of the importance of this factor in producing concentration was the Standard Oil Company, but the influence on other companies has scarcely been less important. In one respect Standard Oil perhaps surpassed all others in profiting by unfair freight rates, in that it not only received rebates upon its own shipments, but drawbacks upon the shipments of its competitors. In other words, the rebates which should have gone to the competitor went to the Standard Oil. Under these conditions the destruction of the weak corporations was inevitable.

(4) *Local Underselling.* — Another factor very influential in promoting concentration is that of local underselling, the purpose being to drive out the weaker competitor. The great corporation having the advantage of a large business and wide markets may sell even at a loss in a given community, until the competitor is obliged to discontinue, the loss to the large company being recouped by large profits elsewhere. This practice has been engaged in by many corporations; but probably the chief one was Standard Oil, which organization almost to the time of its dissolution followed this method of killing competition with great success. Not infrequently the Standard Oil Company used for the purpose a company which was supposed by the public

to be independent, but which secretly belonged to the Standard Oil.

(5) *Patents.* — Another factor favoring concentration is the control of patents. The patent itself gives monopoly. If to produce a given article a certain patent is necessary, all other competitors are driven out unless an equivalent result can be reached in some other way. A complicated manufacturing business is likely to have many details which are covered by patents, so that many great corporations have the partial protection of monopoly through scores of patents. Such organizations are illustrated by the Westinghouse and General Electric companies.

In some specialized lines of machinery, the patents may be so important as to become absolutely necessary for the industry, and in that case control may be secured by refusing to deal with a party unless all the machinery or all the material is purchased from the concern controlling the patents. This has been the practice of the United Shoe Machinery Company. Not only so, but this corporation has gone to the point of so fully controlling the machinery necessary for the cheap manufacture of shoes that it refuses to sell; it merely installs the machines in the factory at a rental. The Shoe Machinery Company has absorbed or driven out all its competitors.

(6) *Manufacturers' Rebates.* — Another practice of the large corporations, very successfully pursued, to secure the market, is to give a rebate upon the list price of the article at the end of a given period, provided the buyer has purchased exclusively from the corporation. This practice was very extensively followed by the American Tobacco Company. Thus, if at the end of the year a buyer had purchased only from that company, he could get a rebate of 5 to 7 per cent upon his purchases, the rate depending upon the magnitude of his business.

(7) *General Statements.* — It is now universally agreed that many of these practices are unfair and should be prohibited. That of rebates by the railroads for interstate transportation was forbidden by the interstate commerce law, and many

states have passed similar laws to apply within the states. While these laws were undoubtedly violated by the railroads upon an extensive scale after their passage, at the present time it is agreed upon all sides that rebates by railroads are morally indefensible; and it is believed that rebating has nearly ceased in consequence of investigations of commissions, federal and national, with attendant prosecutions.

The protection of the tariff still holds; but at the present time the tariff is being investigated by a commission and will probably be readjusted soon. It is generally agreed that such readjustment is necessary. The advantages gained from patents are legal under existing law, and they can only be overcome by a thorough revision of the patent laws.

The legality of giving rebates by manufacturers upon purchases made, provided they are exclusive, has been upheld by the courts in some cases; but such rebates are now regarded as contrary to law. In many of the states there is no law which prevents underselling to drive out a competitor, but in some states statutes and decisions place a ban on this practice (see pp. 170-202). Many people have now come to the point of view that corporations should be required to make their charges in different parts of the country correspond to factory charge plus transportation. It is fully understood that there would be great difficulty in carrying out this idea, since it is one of the fundamental conceptions of the competitive system that a man who owns a thing may sell or refuse to sell; and if he decides to sell, he is without restraint as to the price he may ask; also it has been a universally accepted principle of trade that it is legitimate to sell a large quantity of goods at a lower rate than smaller quantities.

SECTION 3

THE PURPOSES OF CONCENTRATION

The purposes which have led to federation and concentration, in addition to the economic advantages already considered, are the elimination of competition, the regulation of

output and division of business and territory, the maintenance of prices, and the profits of readjustment.

(1) *Elimination of Competition.* — The elimination of competition is the most potent force which led to coöperation and combination. When in a village there are two competitors and they are able to coöperate, competition is partly eliminated; when they unite it is wholly eliminated. This principle extends in its operation from the country cross roads to the great industries. In another place it is shown that keen competition leads to lessening of profits and oftentimes to wiping out profits altogether, or even to loss. It is obvious that the situation may be met by the union of the competing concerns; thus competition itself frequently leads to combination. The elaborate investigation of the Industrial Commission of 1900 led to the conclusion that "among the causes which have led to the formation of industrial combinations, . . . competition, so common, so vigorous, that nearly all competing establishments were destroyed, is to be given first place."¹

A study of the history of any one of the great combinations which exist in the United States will show that a main purpose in the establishment of the combination was the elimination of competition. Therefore only a single illustration will be mentioned. An elaborate investigation of the United States Steel Corporation shows that the first and most important of the purposes, not only in the formation of the groups constituting the steel corporation, but later in the union of the groups, was the elimination of competition.²

(2) *Regulation of Output and Division of Business and Territory.* — Under the competitive system, to be more fully discussed later, at times of large demand and prosperity, manufacturing are likely to become overbuilt. Then follows overproduction in the attempt to reduce cost by a large output, and with this falling prices. When this situation is reached

¹ Industrial Commission, Preliminary Report on the Trusts.

² Hearings, House of Representatives, Investigation United States Steel Corporation, 53, Part I, p. 3638.

and a time of depression comes, the production of the factories running full time would far outrun the demands. Manufactories in an industry which would, at fair price, give a profit if built for the normal demands of the country, when overbuilt, often become unprofitable or run at a loss, at least for many concerns, because of inability to dispose of their goods, or because of interest on capital and depreciation when idle or not running full time, or partly both.

The extent to which overbuilding may go is illustrated by the whisky industry, which before the trust was formed had distilleries with a capacity three or four times as great as the demands of the country. When after a time of prosperity a time of depression came on, as in the panic of 1873, there was a strong desire on the part of the manufacturers to reduce the output of the different distilleries; but unless they were united, it was very difficult indeed to control them so as to make the output of each fairly proportional. This the manufacturers could not do through coöperation without breaking the law regarding restraint of trade. Thus greatly overbuilt, they were almost driven to combination to regulate output. A situation similar to that which led to the whisky combination led to combination in various industries.

Overbuilding and combination.

(3) *Maintenance of Prices.*—The competitive system inevitably leads to great irregularity in price. One of the chief purposes of all coöperation in industry is the maintenance of prices. When the demand exceeds the supply, prices will be high and there will be little tendency to cooperate; but when the supply exceeds the demand, there will be falling prices, and this leads to coöperation for their maintenance. The coöperations may take the form of agreements or pools, or may extend to consolidation. The extent of the control of prices will depend in large measure upon the proportion of the business which is included in the combination.

(4) *Profits of Promoters.*—The fourth important purpose of union and concentration are the profits to promoters and capitalists in putting through the reorganizations. At each

consolidation or reorganization, the capital obligations of the company are increased without the investment of additional money. The inflation takes the form of bonds or stocks, or partly both, of which the stock-holders get a large share, but great blocks often go to the promoters and underwriters.

As we have seen on another page, the American Tobacco Company was first formed; then there was another company formed, to which the American Tobacco Company was subordinate; and then another reorganization made the American Tobacco Company the dominant one. Similarly, the development of the United States Steel Corporation went through several stages, the two chief ones being the consolidation of the elements of the great subsidiary companies into units, and later the union of these units.

Usually at each consolidation the bonds and the preferred stock of the new company represent the actual value of the constituent companies; and this frequently upon a very liberal estimate, sometimes much above the market value of the outstanding bonds and stocks. The common stock issued at such time is usually the capitalization of the good will, the patents, and the economies which are believed will be effected. Since there is no way to calculate accurately in advance the amount of resulting economies, the issue of common stock depends largely upon the constructive imagination of the promoters. It is the aim to capitalize the consolidation sufficiently so that the bond and stocks floated will fully utilize the earning power of the combination. The common stock is speculative, and the profits of the reorganization frequently depend upon the success of the stock promoters, financiers, and manipulators in getting the public to take the common stock, which usually is at the time *aqua pura*; or if not that, it has no more substantial backing than the capitalized somewhat hazy good will, including the trade marks and patents, and economies to be effected. As we have seen, the majority of the great concentrations of industry have gone through two or three stages of such reorganization, the promoters and financiers each time profiting greatly, and sometimes enormously.

Common
stock pure
water.

An illustration is furnished by the American Tobacco Company, which between 1890 and 1904 at its various reorganizations capitalized the good will of the company in stock to the extent of more than \$110,000,000,¹ which, however, between 1904 and 1908 was reduced by \$18,000,000. Another illustration of great overcapitalization was that of the United States Shipbuilding Company. According to James Smith, Jr.,² who was appointed receiver for this company when it was unable to meet its obligations, the real value of the properties which were taken over was about \$12,440,000; whereas it was capitalized at \$67,997,000, or more than five times as much. The directors of the company, according to him, appeared to have made a gift of \$55,000,000 worth of stocks and bonds to various members interested in the manipulations.

Tobacco.

Shipbuilding company.

Probably the largest amount of water that went on to the market at one time was placed by the United States Steel Corporation; more than \$500,000,000 of common stock when issued represented no substance whatever; but this is not the present situation (see pp. 000-000). The speculative character of this stock is indicated by its wide market variations. This stock was placed on the market at about 45; went below 30 in 1902; in 1903 it ranged from 39 to 10; since that time, in 1909, it reached 94 $\frac{1}{2}$, and March 30, 1912 had a market value of 68. Many other instances could be given of the very wide ranges of the common stock of the great corporations, varying from those like the writing paper trust, the upper leather trust, and the union paper bag trust, the common stock of which has ranged from 50 cents a share up to \$4 or \$5 a share, to those in which the common stock has in large measure been made substance.

Steel.

The trusts that failed.

As illustrations of common stock which have gone far above par may be mentioned American Tobacco and Standard Oil. American Tobacco has been above 525 and Standard Oil has reached 900.

Even the preferred stock of the better industrials had very

¹ Report of Commissioner of Corporations, "Tobacco Industry," Part 2, p. 13. ² "Trusts, Pools, and Corporations," Ripley, pp. 197-198.

wide ranges in their market values in their earlier years; but there has been a tendency toward solidity and uniformity in the prices of the better class of American preferred industrials, a considerable number of which are now above par. This is shown by the following table:—

TABLE 2. RANGE OF PREFERRED STOCK FOR SOME IMPORTANT INDUSTRIALS FOR 1900 AND 1910

	1900 ¹		1910 ²	
	Highest	Lowest	Highest	Lowest
American Car and Foundry . . .	72	57 $\frac{3}{8}$	120	109
American Cotton Oil	100	73 $\frac{1}{2}$	107	100
American Smelting and Refining .	99	85	112 $\frac{3}{4}$	98 $\frac{1}{4}$
American Sugar Refining	118 $\frac{1}{4}$	106	124	110
American Tobacco	143	128	99 $\frac{3}{4}$	90 $\frac{1}{2}$
General Electric	200	120	160 $\frac{7}{8}$	134
Laclede Gas	102 $\frac{1}{4}$	95	116 $\frac{1}{2}$	93 $\frac{3}{4}$
National Lead	107 $\frac{1}{4}$	83	110	101 $\frac{3}{4}$
Pressed Steel Car	89	70 $\frac{1}{8}$	107 $\frac{1}{2}$	90
Pullman	204	176	200	153 $\frac{3}{4}$
Republic Iron and Steel	70 $\frac{3}{4}$	49	104 $\frac{1}{4}$	82 $\frac{3}{4}$
Union Bag and Paper	77 $\frac{3}{4}$	56 $\frac{1}{4}$	73	52 $\frac{1}{8}$
United States Rubber	105 $\frac{1}{2}$	74 $\frac{1}{2}$	116 $\frac{1}{2}$	99
United States Steel (1901) . . .	101 $\frac{7}{8}$	69	125 $\frac{3}{8}$	110 $\frac{1}{2}$

Many consolidations organized in the United States have put a variable amount of watered stock upon the market from a small sum to the \$500,000,000 of the United States Steel Corporation.

The most serious of the evils of overcapitalization are as follows:—

(a) That portion of the stock which is pure water or is largely diluted, through stock manipulating campaigns, is sold to the public, oftentimes for several times its real value.

(b) When watered stock is placed upon the market, the

¹ Bradstreet's, January 5, 1901, p. 8.

² *Ibid.*, December 31, 1910, p. 251.

officers of a company try to make earnings sufficient to pay dividends upon it; and in order to do this, if practicable, excessive prices are charged.

(c) Sometimes the officers of a company, which has a large amount of watered stock, put earnings back into the business with the purpose of making the water substance; to do this further adds to excessive prices.

(d) Oftentimes the necessity of paying dividends upon watered stock makes it difficult to accumulate a sufficient reserve to protect the business; and when a time of depression comes, the concern is likely to fall into the hands of a receiver.

Closely connected with overcapitalization are the profits which come to the financiers in connection with the manipulation of the stock on the market, especially the common stock. In this country there is no law which prohibits officers and directors from dealing in the stocks of their own companies. Having inside information, they are able to take advantage of the situation, buying when there is likelihood of a rise, selling when there is likelihood of a fall. Indeed, it is certain that the officers of some companies, by giving favorable and unfavorable information, by timing the news to their purposes, and in other ways, have both bulled and beared their stock, having as their aim their own personal advantage rather than the benefit of the stockholders. Such practices are unlawful in European countries and should be prohibited in America. It is but just to say that for the majority of the greater corporations there is no evidence that this grosser form of manipulation has been practiced on a large scale. In general the officers and trustees of a company have tried to increase the value of its stock, since in most cases they are holders of the securities of the company.

Stock
manipulation.

SECTION 4

THE KINDS OF BUSINESS MOST LIKELY TO BECOME CONCENTRATED

Certain classes of business are especially adapted to concentration. These classes are as follows:—

(1) Industries in which the element of natural monopoly enters are likely to become concentrated. Here are included the public utilities. For a long time it was supposed that the railroads were on the same basis as any other business, and that the desirable thing to do was to have as many companies as possible. Parallel lines were regarded as advantageous because they would compete for trade and in price. The disastrous costliness of this theory was clearly brought out by the paralleling of the Vanderbilt lines between New York and Chicago by the West Shore and the Nickel Plate. As the railroad business developed it became evident that if great sums of money were put into unnecessary railroads the public must bear the expense; that if there were two railroads between two given points when one could do the business, the rates must be higher rather than lower in the long run in order to pay interest upon the investment. This view was accepted only after ruinous competition had occurred upon a great scale with enormous economic loss.

The principles of this part of the subject are so well known that they need not be elaborated. It is now accepted doctrine that railroads, electric lines, both city and urban, telegraph and telephone, and other means of transportation and communication, should only be developed sufficiently to do the required business. The business is best done when the number of railroad lines from one city to another are just sufficient to handle the traffic, when a single company controls all of the city railways, when the telegraph business is done by two companies instead of by a score, when the telephone business of the country is substantially controlled by a single organization. Indeed, these facts are so well recognized abroad that in Europe the means of communication are always government monopolies, and the means of transportation largely or exclusively so except in Great Britain.

(2) Businesses depending upon a natural resource limited in quantity and localized in its occurrence are likely to become concentrated. This is well illustrated by anthracite coal,

The West
Shore road.

Public
utilities and
monopoly.

all of which for the United States is contained in one small area in Pennsylvania of about five hundred square miles. The entire anthracite business is now substantially controlled by a half dozen corporations.

Limited
natural
resources.

(3) Businesses in articles which can be standardized, and which in quality are sometimes controlled by inspection, are likely to become concentrated. Here are included sugar, oil, salt, whisky, and to a less extent those industries in which there are standard forms and dimensions, as, for instance, steel, matches, etc. Salt is inspected and must reach a definite quality; oil must meet the test of the public inspector for safety; sugar is easily tested by the polariscope. It is notable that the early group of trusts included salt, whisky, oil, and sugar.

Standard-
ized articles.

During recent years by large scale manufacture there have developed various lines in which articles of commerce in themselves very complex may be regarded as standardized. A manufacturer by producing a very large number of machines of exactly the same kind is able to standardize the machinery and standardize methods of operation and thus reduce cost to a minimum; whereas this would not have been possible without such standardization. Common illustrations of this type of standardization are certain kinds of automobiles, cash registers, and typewriters.¹

(4) Articles which are demanded over a wide territory are likely to become concentrated in production. In this connection the development of transportation is of paramount importance. If an article be used throughout the country, a company producing it may be very large and have many plants even if the object itself be small; thus the Diamond Match Company produces the greater part of the matches of the United States.

Widely
used
commodi-
ties.

The strength of a very large corporation producing an article of wide use may lie not in a single plant at one locality but in many plants of the same kind in different localities. Thus a single lumber company may have hundreds of yards in

¹ Hearing before the committee on Interstate Commerce, United States Senate, Part XXI, p. 1784.

as many cities ; a hardware company may have shops distributed throughout a large part of the country ; and recently, we have seen the development of shops under one company in various cities for groceries, dry goods, and other commodities.

(5) Businesses protected by patents are especially likely to become concentrated. A patent gives a monopoly by law, and thus the same principle applies to the making of patent-protected products that applies to a natural monopoly. Here also are to be included trade-marks, which, protected by law, have the same effect as patents, although their influence upon concentration is by no means so far-reaching.

(6) Businesses which in themselves are of a kind to require a large amount of capital are likely to become concentrated. To build a sugar refinery costs several millions of dollars. To build a steel plant adapted to one line of product, as, for instance, steel rails, may involve the expenditure of many millions of dollars. As will be seen in another place, there is likely to be greater fierceness of competition among relatively few and large companies than among many small ones. At the time of the formation of the sugar trust, in consequence of the killing of competition, consolidation became inevitable. At that time, in 1887, there were forty sugar refineries in the United States, and the combination only occurred after some eighteen had gone into bankruptcy.¹

SECTION 5

THE EXTENT OF CONCENTRATION

The manufacturing census of 1905 enables us to trace the stages of concentration, so far as the establishments are concerned, for a number of decades. By establishment is meant a plant which is owned by a single individual, firm, or corporation, located in a single city, town, or county, and engaged in a single industry.

Concentration in Management Greater than Concentration in Plants.—There are certainly hundreds of corporations in the

¹ "The Trust Problem," Jenks, p. 19.

Protection
by patents.

Large
capital.

United States to which the term "trust" has been popularly applied, because each represents a consolidation in management of establishments once independent. No list of organizations of this kind is available, but it has been estimated that there are five hundred or more such in the United States.

The number
of trusts.

Often a considerable number of establishments of different kinds and of the same kind located in different parts of the country are owned or controlled by a single corporation. The greater corporations control several scores of establishments, and some of them, illustrated by the United States Steel, more than two hundred.

If a list of organizations were available controlling more than one establishment, and the number of establishments constituting each organization were known, it would be practicable to give a more accurate estimate of the extent to which concentration has gone than is now possible.

Statistics Confined to Factory System.—The census reports are confined to those establishments which are included within the factory system. They do not include such plants as the small custom grist and saw mills, the small shop such as the blacksmith shop, or manufacture in the household.

Considering all industries together, the census report of 1905 for the country as a whole includes 216,262 establishments. As showing the extent to which the large establishments control industry, the 24,181 establishments which have products exceeding \$100,000 per annum, being only 11.2 per cent of the total number, have control of 81.5 per cent of the capital, employ 71.6 per cent of the wage earners, and produce 79.3 per cent of the value of the products. In some lines of industry every establishment has a product exceeding \$100,000 in value. Here are included rubber, glucose, locomotives, smelting and refining of zinc.

Dominance
of large
establish-
ments.

Localization of Industries.—In connection with concentration there has grown up, as a corollary, a localization of many industries, the larger part of an industry for the country perhaps being located in a state, and sometimes even in a county. In other cases the localization is in a great section of the

country in which the conditions are similar. The localization in connection with concentration is dependent upon a number of causes. Sometimes the resources upon which the industry is based are found only in one section of the country. Another frequent cause for localization is that when once an industry has become established in a certain district, there may be found trained workmen for it. In consequence, when the existing corporation is enlarged, a plant is built in the same vicinity; or when a new company enters the business, it builds its plant in the locality in which there are available workmen. Other factors favoring localization are nearness to markets, water power, and favorable climate.

If an industry be an important one, it may have a number of centers, and in these few centers a large part of the business be located. In no case is any industry completely localized; there will be chief centers in which we find the larger number of great plants, and in the other parts of the country the industry may exist in a more dispersed form.

As illustrating the localization principle may be mentioned the following industries:—The chief center for the manufacture of agricultural implements is the upper Mississippi Valley, with New York and Pennsylvania. The iron and steel industry is very largely localized in the states of Pennsylvania, Ohio, Illinois, and Alabama. The meat-packing industry is mainly in the four states of Illinois, Kansas, Nebraska, and Missouri; however, Massachusetts, Iowa, California, Minnesota, and New Jersey are important states. As an illustration of extreme localization, 77.2 per cent of the ammunition of the country is manufactured in Connecticut. This is connected by the Census Bureau with the fact that in the manufacture of side arms, rifles, shotguns, and revolvers, Connecticut has a prominent place. The manufacture of rubber boots and shoes is done in New England to the extent of 90 per cent.

Concentration in Representative Industries.—For a number of selected industries the facts as to the increase of concentration are tabulated for one or more decades. The numbers other than percentages are taken directly from the census

reports; the latter have been calculated. For each product these tables give the number of plants, the value of the products, the capital per establishment, and the value of product per establishment, for a number of decades, in some cases as far back as 1850, in other cases only for one or two decades. Since the reports are from the census of 1905, the last numbers are for a half decade.

Brief comments will be made regarding each of the foregoing tables.

It will be seen for *iron and steel* (Table 3), not only that the number of establishments has not increased since 1870, but that it has decreased each decade; and that the total number of establishments in 1905, 606, is 25 per cent less than in

TABLE 3. IRON AND STEEL—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE 1870-1905, BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	TONS OF PRODUCTS	CAPITAL PER EACH ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT	TONS OF PRODUCT PER ESTABLISHMENT
1870 . . .	808	121,772,074	207,208,696	3,263,585	150,708	256,446	4,039
1880 . . .	792	209,904,965	296,557,685	6,486,733	265,032	374,442	8,190
% of Increase	-2.0	72.4	43.1	98.8	75.8	46.0	102.8
1890 . . .	719	414,044,844	478,687,519	16,264,478	575,862	665,768	22,621
% of Increase	-9.2	97.3	61.4	150.7	117.3	77.8	176.2
1900 . . .	669	590,530,484	804,034,918	29,507,860	882,706	1,201,846	44,107
% of Increase	-7.0	42.6	68.0	81.4	53.3	80.5	94.9
1905 . . .	606	948,689,840	905,854,152	34,844,933	1,565,495	1,494,809	57,499
% of Increase	-9.4	60.7	12.7	18.1	77.3	24.4	30.3
% of Increase							
1870-1905 .	-25.0	679.0	337.1	967.7	938.8	482.8	1,323.6

1870. This is the situation, notwithstanding the fact that each decade the capital of the business has increased from 42 per cent to 97 per cent, and even for the five years between 1900 and 1905, 60 per cent. Similarly the value of the products has increased each decade from 46 per cent to 80 per cent, but the proportional increase was not so great for the five years from 1900 to 1905. In the same way, if we go by tons of product, the increases for the three decades were 103 per cent, 176 per cent, and 95 per cent, an average per

decade for the thirty years of more than 100 per cent; that is to say, the output of each decade between 1890 and 1900 was more than for all previous decades. In 1905 the average capital per plant was more than \$1,500,000, and the value of the products annually \$1,500,000. The capital per establishment in 1905 was more than ten times as great as in 1870, the value of the product more than five times as much, and the output itself fourteen times as great. Thus the output has increased faster than the price.

While the number of iron and steel establishments in 1905 was 606, seven great companies, now reduced to six, owning the great establishments, controlled more than 90 per cent of the output of the country.

By inspection of the other tables statements might be made parallel to that which has been made regarding iron and steel, but this hardly seems necessary since a most cursory examination of them renders the facts apparent. Therefore only such general points will be added as are brought forth by the tables.

Coke (Table 4) is an industry which has very rapidly expanded and is one in which the number of plants has steadily increased. This is due partly to the great expansion of the

TABLE 4. COKE—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1880-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1880	126	4,769,858	5,359,489	37,856	42,536
1890	218	17,462,729	16,498,345	80,104	75,680
% of Increase .	73.0	266.1	207.8	111.6	77.9
1900	241	36,502,679	35,585,445	151,463	147,657
% of Increase .	10.6	109.0	115.7	89.1	95.1
1905	278	90,712,877	51,728,647	326,305	186,074
% of Increase .	15.4	148.5	45.4	115.4	26.0
% of Increase, 1880-1905 .	120.7	1,801.9	865.2	761.9	337.5

iron and steel industry, in which coke is mainly used. Also, the manufacture of coke distributes itself naturally, either adjacent to the coal fields from which it is made, or to the iron furnaces which use the product.

Shipbuilding (Table 5) shows from 1850 to 1905 a slight increase in number of plants, capital multiplied nearly twenty-

TABLE 5. SHIPBUILDING—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1850-1905 BY PERIODS.

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1850	953	5,373,139	16,937,525	5,638	17,773
1860	675	5,952,665	13,424,037	8,819	19,887
% of Increase .	-29.2	10.8	-20.7	56.4	11.9
1870	964	11,463,076	21,483,967	11,891	22,286
% of Increase .	42.8	92.6	60.0	34.8	12.1
1880	2,188	20,979,874	36,800,327	9,588	16,819
% of Increase .	127.0	83.0	71.3	-19.4	-24.5
1890	1,006	27,262,892	38,065,410	27,100	37,838
% of Increase .	-54.0	29.9	3.4	182.6	125.0
1900	1,107	77,341,001	74,532,277	69,865	67,328
% of Increase .	10.0	183.7	95.8	157.8	77.9
1905	1,097	121,623,700	82,769,239	110,869	75,451
% of Increase .	-0.9	57.3	11.1	58.7	12.1
% of Increase, 1850-1905 .	15.1	2,163.5	388.7	1,866.4	324.6

fold, and the value of product fourfold. Probably this striking discrepancy is related to stock manipulation described, pp. 28-31.

Electrical machinery, apparatus, and supplies (Table 6) show a history only from 1880, because these industries have mainly arisen within the past three decades. As would be expected under these circumstances, the increase of plants has been very great, as has also the capitalization per establishment and the value of the output. While there are in this industry a large number of establishments, 784, two great companies, the General Electric and Westinghouse, pro-

duce a large per cent of the value of the output of the country. This illustrates how much farther concentration of manage-

TABLE 6. ELECTRICAL MACHINERY, APPARATUS, AND SUPPLIES — COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1880-1905 BY PERIODS.

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1880	76	1,508,758	2,655,036	19,865	34,934
1890	189	18,997,337	19,114,714	100,515	101,136
% of Increase .	148.7	1,158.3	619.9	405.9	189.5
1900	581	83,659,924	92,434,435	143,993	159,095
% of Increase .	207.4	340.4	383.6	43.3	57.3
1905	784	174,066,026	140,809,369	222,023	179,604
% of Increase .	34.9	108.1	52.3	54.2	12.9
% of Increase, 1880-1905 .	931.7	11,429.4	5,203.5	1,017.7	414.1

ment has gone than increase in the magnitude of establishments.

For *petroleum* (Table 7), in 1905 there were 98 refineries, but as is shown in another place one company, the Standard

TABLE 7. PETROLEUM REFINING — COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1880-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1880	86	27,325,746	43,705,218	317,741	508,200
1890	94	77,416,296	85,001,198	823,577	904,268
% of Increase .	9.3	183.3	94.5	159.2	77.9
1900	67	95,327,892	123,929,384	1,422,804	1,849,692
% of Increase .	-28.7	23.1	45.8	72.7	104.5
1905	98	136,280,541	175,005,320	1,390,618	1,785,769
% of Increase .	46.3	43.0	41.2	-2.3	-3.5
% of Increase, 1880-1905 .	13.9	398.7	300.5	337.6	251.3

Oil, controlled a sufficient number of these so as to produce more than 95 per cent of the oil of the country.

Clay product establishments, (Table 8), from 1850 to 1905 became twice as numerous with a seventeenfold capitalization, and a sixfold value of product per establishment. The increase in number of clay product establishments is explained by the very wide distribution of clay and the weight of the articles manufactured. The manufactory is

TABLE 8. CLAY PRODUCTS—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1850-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1850	2,121	5,217,231	8,189,359	2,459	3,861
1860	2,240	9,707,952	13,987,828	4,333	6,244
% of Increase .	5.6	86.1	70.8	76.2	61.7
1870	3,959	26,776,011	36,368,151	6,763	9,186
% of Increase .	76.7	175.8	160.0	56.1	47.1
1880	6,383	35,039,939	41,810,920	5,489	6,550
% of Increase .	61.2	30.9	15.0	-18.8	-28.7
1890	6,535	108,705,670	89,827,785	16,634	13,745
% of Increase .	2.4	210.2	114.8	203.0	109.9
1900	6,423	148,038,323	95,533,862	23,048	14,873
% of Increase .	-1.7	36.2	6.4	38.5	8.2
1905	5,507	230,882,977	135,352,854	41,925	24,578
% of Increase .	-14.3	56.0	41.7	81.9	65.2
% of Increase, 1850-1905 .	159.6	4,325.3	1,552.7	1,604.9	536.5

located near the clay bank so as not to entail heavy freights in reaching the market.

Glass (Table 9), like clay products, is one of the industries in which there has been an increase in the number of plants and at the same time a great increase in the value of the capital and the output.

Salt (Table 10) is one in which the normal process of concentration is well illustrated. We find a decrease in

the number of plants in 1905 to less than one half those in 1850, and multiplication of capital per establishment twenty-twofold, and value of product tenfold. As is seen in another place, salt is derived from a natural resource limited in amount, confined to definite areas, and the product is standardized; therefore it is of a kind in which the

TABLE 9. GLASS—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1850-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1850	94	3,402,350	4,641,676	36,195	49,379
1860	112	6,133,666	8,775,155	54,764	78,349
% of Increase .	19.1	80.3	89.1	51.3	58.7
1870	201	14,111,642	19,235,862	70,207	95,700
% of Increase .	79.5	130.1	119.2	28.2	22.1
1880	169	18,804,599	21,154,571	111,269	125,174
% of Increase .	-15.9	33.3	10.0	58.5	30.8
1890	294	40,966,850	41,051,004	139,343	139,629
% of Increase .	74.0	117.9	94.1	25.2	11.5
1900	355	61,423,903	56,539,712	173,025	159,210
% of Increase .	20.7	49.9	37.7	24.2	14.1
1905	399	89,389,151	79,607,998	224,032	199,518
% of Increase .	12.4	45.5	40.8	29.5	25.3
% of Increase, 1850-1905 .	324.4	252.7	1,615.0	519.0	304.1

manufacture is especially favorable to concentration. Salt manufacture was the first industry in which the tendency toward consolidation in management appeared. At one time the entire output of the country was controlled by a single combination. (See pp. 101-103.)

Manufactured ice (Table 11) is one of the industries in which the movement has been contrary to the usual rule. The first decade, that from 1870 to 1880, was an experimental one. The permanent tendency of the manufacture is shown by the figures from 1880 to the present time. Using these, it will be seen that the number of plants has increased

very greatly. This increase is due to the nature of the product. Ice is an article which is heavy in proportion to its cost; not only so, it is one which must in the warm weather be transported in cold storage, which still further increases the transportation-cost. Hence where ice does not naturally form reasonably close at hand, it is cheaper to manufacture it than to transport natural ice to the locality. Similarly, it is cheaper to manufacture the ice at each important center

TABLE 10. SALT—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1850-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1850	340	2,640,860	2,177,945	7,767	6,405
1860	399	3,692,215	2,289,504	9,253	5,738
% of Increase .	17.4	39.8	5.1	19.2	-10.4
1870	282	6,561,615	4,818,229	23,268	17,085
% of Increase .	-29.3	77.7	110.4	151.4	197.8
1880	268	8,225,740	4,829,566	30,693	18,020
% of Increase .	-5.0	25.4	0.2	31.9	5.5
1890	200	13,437,749	5,484,618	67,188	27,423
% of Increase .	-25.4	63.4	13.6	118.9	52.2
1900	159	27,123,364	7,966,897	170,587	50,106
% of Increase .	-20.5	101.8	45.3	153.8	82.7
1905	146	25,586,282	9,437,662	175,248	64,641
% of Increase .	-8.2	-5.7	18.5	2.7	29.0
% of Increase, 1850-1905 .	-57.1	868.8	333.4	2,156.3	909.2

than to transport it from one to another. Hence we find 1320 plants in 1905 as compared with 35 in 1880. The capital per establishment has increased about 50 per cent from 1880 to 1905; but the value of the product per establishment has not radically changed since the earlier date.

For *lumber and timber* (Table 12), the number of establishments from 1850 increased and then later decreased until the total number was not much greater in 1905 than in 1850.

TABLE 11.—MANUFACTURED ICE—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1870-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1870	4	434,000	258,250	108,500	64,562
1880	35	1,251,200	544,763	34,720	15,565
% of Increase .	775.0	188.3	110.9	68.0	- 75.9
1890	222	9,846,468	4,900,983	44,354	22,077
% of Increase .	534.3	687.0	799.7	27.8	41.8
1900	787	38,204,054	13,874,513	48,544	17,629
% of Increase .	254.5	288.0	183.1	9.4	- 20.2
1905	1,320	66,592,001	23,790,045	50,448	18,022
% of Increase .	67.7	74.3	71.5	3.9	2.2
% of Increase, 1870-1905 .	32,900.0	15,243.8	9,112.0	- 53.5	- 72.1

TABLE 12.—LUMBER AND TIMBER PRODUCTS—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1850-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1850	18,769	41,444,364	60,413,187	2,208	3,218
1860	20,659	74,530,090	96,715,856	3,607	4,681
% of Increase .	10.1	79.8	60.1	63.3	45.4
1870	25,832	143,493,232	210,159,327	5,554	8,174
% of Increase .	25.0	92.5	117.3	53.9	74.6
1880	25,708	181,186,122	233,268,729	7,047	9,073
% of Increase .	- 0.5	26.3	11.1	26.9	11.0
1890	22,617	397,861,928	437,957,382	17,591	19,364
% of Increase .	- 12.0	119.6	87.8	149.6	113.4
1900	23,053	400,857,337	555,197,271	17,388	24,083
% of Increase .	1.9	0.8	26.8	- 1.2	24.3
1905	19,127	517,224,128	580,022,690	27,041	30,324
% of Increase .	- 17.0	29.0	4.5	55.5	25.9
% of Increase, 1850-1905 .	1.9	1,147.9	860.1	1,124.6	842.3

However, the capital per establishment for 1905 is more than twelve times, and the value of the product per establishment more than nine times, those of 1850. The explanation of the maintenance of a large number of establishments for lumber and timber is of course the weight of the material as compared with its value. In the manufacture a large part of the wood of the logs is removed, and therefore the product is usually handled near its source.

Paper and wood pulp (Table 13) is an industry in which there has been an increase in the number of establishments,

TABLE 13.—PAPER AND WOOD PULP—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1850-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1850	443	7,260,864	10,187,177	16,390	22,995
1860	555	14,052,683	21,216,802	25,320	38,228
% of Increase .	25.3	93.5	108.3	54.5	66.2
1870	677	34,556,014	48,849,285	51,808	73,237
% of Increase .	22.0	145.9	130.2	104.6	91.6
1880	742	48,139,652	57,366,860	64,878	77,313
% of Increase .	9.6	39.3	17.4	25.2	5.6
1890	649	89,829,548	78,937,184	138,412	121,628
% of Increase .	- 12.5	86.6	37.6	113.3	57.3
1900	763	167,507,713	127,326,162	219,538	166,875
% of Increase .	17.6	86.5	61.3	58.6	37.2
1905	761	277,444,471	188,715,189	364,578	247,983
% of Increase .	- 0.3	65.6	48.2	66.1	48.6
% of Increase, 1850-1905 .	71.8	3,721.1	1,752.4	2,124.4	978.5

but a much greater increase in the capital and the value of the output per establishment. The reasons for this situation are the same as those for lumber, the raw material for paper and wood pulp being the forests.

Printing and publishing (Table 14) is one of the industries in which there has been increase in number of plants, no

great increase in capital, and no great increase in the value of the product per establishment. It gives the best illustration of any of the tables of the lack of tendency toward concentration. The explanation undoubtedly is that the great majority of printing and publication establishments publish newspapers. Every community of any size has a newspaper, and the large city has a considerable number, each one of which has its own plant. Local news can only be handled locally. The news of the day is demanded

TABLE 14. PRINTING AND PUBLISHING—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1880-1905 BY PERIODS.

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1880	—	—	179,988,415	—	—
1890	16,566	195,387,445	275,452,515	11,794	16,627
% of Increase .	—	—	53.0	—	—
1900	22,311	292,516,642	347,054,430	13,110	15,555
% of Increase .	34.7	49.7	26.0	11.1	- 6.4
1905	26,422	385,008,604	496,061,357	14,571	18,774
% of Increase .	18.4	31.6	42.9	11.1	20.7
% of Increase, 1880-1905 . .	—	—	175.6	—	—
% of Increase, 1890-1905 .	59.5	97.1	80.1	23.5	12.9

in the evening or the morning. Concentration of the printing industry is therefore impossible.

In *agricultural implements* (Table 15), concentration has gone very far, the number of plants being not half as great in 1905 as in 1850; but the value of the output of each establishment is more than thirty times as great as in 1850. Agricultural implements illustrate the class of product which is very widely used, can be standardized, and hence is favorable to concentration in manufacture. These factors are more important than the freight, although agricultural implements are heavy.

TABLE 15. AGRICULTURAL IMPLEMENTS—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1850-1905 BY PERIODS.

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1850	1,333	3,564,202	6,842,611	2,674	5,133
1860	2,116	13,866,389	20,831,904	6,553	9,845
% of Increase .	58.7	289.0	204.4	145.1	91.8
1870	2,076	34,834,600	52,066,875	16,779	25,080
% of Increase .	-1.9	151.2	149.9	156.0	154.7
1880	1,943	62,109,668	68,640,486	31,966	35,327
% of Increase .	-6.4	78.3	31.8	90.5	40.9
1890	910	145,313,997	81,271,651	159,685	89,309
% of Increase .	-53.2	134.0	18.4	399.4	152.8
1900	715	157,707,951	101,207,428	220,571	141,549
% of Increase .	-21.4	8.5	24.5	38.2	58.5
1905	648	196,740,700	112,007,344	303,612	172,851
% of Increase .	-9.4	24.8	10.7	37.6	22.1
% of Increase, 1850-1905 .	-51.4	5,419.9	1,536.9	11,254.2	3,267.6

TABLE 16. BUTTER, CHEESE, AND CONDENSED MILK—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1880-1905 BY PERIODS.

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1880	3,932	9,604,803	25,742,510	2,442	6,546
1890	4,552	16,016,573	60,635,705	3,518	13,320
% of Increase .	15.8	66.8	135.5	44.1	103.4
1900	9,242	36,303,164	130,783,349	3,928	14,151
% of Increase .	103.0	126.7	115.7	11.7	6.2
1905	8,926	47,255,556	168,182,789	5,295	18,842
% of Increase .	-3.4	30.2	28.6	34.8	33.2
% of Increase, 1880-1905 .	127.0	392.0	553.3	116.8	187.8

Butter, cheese, and condensed milk (Table 16) represent an industry with an increase in number of establishments, and no rapid increase in the capital per establishment and the value of the output. The explanation is that the raw material, milk, is being produced over a steadily widening territory, and transported, must be transported rapidly. This is expensive ;

TABLE 17. BEET SUGAR (1890 DATA NOT GIVEN)—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1880-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1880	4	365,000	282,572	91,250	70,643
1900	30	20,141,719	7,323,857	671,390	244,128
% of Increase .	650.0	5,418.3	2,491.8	635.7	245.5
1905	51	55,923,459	24,393,794	1,096,538	478,309
% of Increase .	70.0	177.6	233.1	63.3	95.9
% of Increase, 1880-1905 .	1,175.0	15,221.5	8,532.7	1,101.7	577.1

hence it is advantageous to have numerous establishments of fair size distributed throughout the producing area.

Beet sugar (Table 17) is another industry which has a short history. In this case, there is a very great increase in the number of establishments, capital per establishment, and value of product per establishment. The former shows dispersion of the industry with the expansion of the beet-growing territory, and the latter increase in the magnitude of the establishments. Beets are heavy as compared with their cost ; they cannot be transported far, and wherever a district undertakes the growing of beets, a manufactory must be located near the source of supply.

Starch (Table 18), one of the standardized articles, has had something of a decrease in the number of establishments from 1850 to 1905, but a multiplication of more than elevenfold in capital, and of sevenfold in the value of the output per establishment.

Tobacco (Table 19) is an industry in which there has been a great increase in the number of establishments. The number in 1905 was thirteen and one half times as great as in 1860. While there has been a steady and moderate

TABLE 18. STARCH—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1850-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENTS
1850	146	692,675	1,261,468	4,744	8,640
1860	167	2,051,710	2,823,258	12,286	16,906
% of Increase .	14.4	196.2	123.8	159.0	95.7
1870	195	2,741,675	5,994,422	14,059	30,741
% of Increase .	16.8	33.6	112.3	14.4	81.8
1880	139	5,328,256	7,477,742	38,332	53,797
% of Increase .	-28.7	94.3	24.7	172.7	75.0
1890	80	4,929,155	8,934,517	61,614	111,681
% of Increase .	-42.4	-7.5	19.5	60.7	107.5
1900	124	11,671,567	9,232,984	94,125	74,459
% of Increase .	55.0	136.8	3.3	52.8	-33.4
1905	131	7,007,695	8,082,904	53,494	61,701
% of Increase .	5.6	-40.0	-12.5	-43.2	-17.1
% of Increase, 1850-1905 .	-10.3	911.8	540.8	1,027.6	614.1

increase in the capital per establishment and an increase in the value of the product per establishment, these have not been large. Thus tobacco is a case in which, so far as number of establishments is concerned, the industry is much dispersed.

But these statistics might lead to quite erroneous conclusions; for, as we have seen in another connection, this is one of the industries in which a few of the great manufactories are doing a large part of the business, and one in which a single concern reached a position of monopoly. The American Tobacco Company, before its dissolution, controlled more than 50 per cent of the business of the country,

and controlled from 59 to over 90 per cent of all of the lines of tobacco business with the exception of cigars. This illustration shows how far the statistical tables of the census fail to give an idea of the extent of concentration of management which has taken place.

In the *slaughter and meat packing industry* (Table 20), the number of establishments has greatly increased from 1850 to 1905, being five times as numerous; and during the same time the capital per establishment has become thirteenfold, and the value of the product per establishment fifteenfold.

TABLE 19. TOBACCO—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1860-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1860	2,104	12,529,960	30,889,313	5,955	14,681
1870	5,204	24,924,330	71,762,044	4,789	13,789
% of Increase .	147.3	98.9	132.3	-19.6	-6.1
1880	7,622	38,905,950	116,772,631	5,104	15,320
% of Increase .	46.5	56.1	62.7	6.6	11.1
1890	11,351	90,359,143	195,536,862	7,960	17,226
% of Increase .	48.9	132.3	67.5	55.9	12.5
1900	14,959	111,517,318	263,713,173	7,454	17,629
% of Increase .	31.8	23.4	34.9	-6.4	2.3
1905	16,828	323,983,501	331,117,681	19,252	19,676
% of Increase .	12.5	190.5	25.6	158.2	11.6
% of Increase, 1860-1905 .	699.8	2,485.6	971.9	223.2	34.0

The explanation of the numerous plants is the fact that concentration has not gone to the point so that the small community does not have its own slaughterhouse. However, as is shown in another place, more than 50 per cent of the business of the country is done at the great abattoirs of the large cities. So far as management is concerned these are under the control of six great concerns; and these six are charged with cooperating in business. The average

capital per establishment is large, more than a quarter of a million; the ratio between capital and output per establishment is 1 to 4, a much higher ratio than obtains for most industries.

The *leather* business (Table 21) is one of great concentration. The number of plants in 1905 is less than one sixth as many as in 1850, the capital per establishment more than sixtyseven times as great, and the value of the product thirtyseven times as great. Tanning is a complex, chemical

TABLE 20. SLAUGHTERING AND MEAT PACKING—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1850-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1850	185	3,482,500	11,981,642	18,824	64,765
1860	259	10,158,362	29,441,776	39,221	113,675
% of Increase .	40.0	191.7	145.7	108.3	75.5
1870	768	24,224,692	75,826,500	31,542	97,430
% of Increase .	196.5	138.5	157.5	-19.6	-14.3
1880	872	49,419,213	303,562,413	56,673	348,122
% of Increase .	13.5	104.0	300.3	79.7	257.3
1890	1,118	116,887,504	561,611,668	104,550	502,336
% of Increase .	28.2	136.5	85.0	84.4	44.3
1900	882	188,800,181	783,779,191	214,059	888,627
% of Increase .	-21.1	61.5	39.6	104.7	76.9
1905	929	237,714,690	913,914,624	255,882	983,762
% of Increase .	5.3	25.9	16.6	19.5	10.7
% of Increase, 1850-1905 .	402.1	6,725.9	7,527.6	1,259.3	1,419.

process, requiring a large plant. The raw hides in large number come from the great packing houses and from importations. That portion derived from the dispersed slaughterhouses can readily reach the great tanneries, since hides are not heavy as compared with their value. Another factor localizing the tanneries is the necessity for tanbark. This largely locates the industry in the parts of the country where this material is not at a great distance.

TABLE 21. LEATHER, TANNED, CURRIED, FINISHED—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1850-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1850	6,686	22,774,795	43,457,898	3,406	6,499
1860	5,188	39,025,620	75,698,747	7,522	14,591
% of Increase .	-22.4	71.4	74.2	120.8	124.5
1870	7,569	61,124,812	157,237,597	8,075	20,773
% of Increase .	45.9	56.6	107.7	7.3	42.4
1880	5,628	73,383,911	200,264,944	13,039	35,583
% of Increase .	-25.6	20.1	27.4	61.5	71.3
1890	1,787	98,088,698	172,136,092	54,890	96,326
% of Increase .	-68.2	33.7	-14.0	320.9	170.7
1900	1,306	173,977,421	204,038,127	133,213	15,623
% of Increase .	-26.9	77.4	18.5	142.7	62.2
1905	1,049	242,584,254	252,620,986	231,252	240,820
% of Increase .	-19.7	39.4	23.8	73.6	54.1
% of Increase, 1850-1905 .	-84.4	965.1	481.3	6,689.5	3,605.5

The manufacture of *boots and shoes* (Table 22), a severely competitive industry, and a business which has been freely entered by competitors, shows a decrease in the number of

TABLE 22. BOOTS AND SHOES—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1880-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1880	1,959	42,994,028	166,050,354	21,947	84,763
1890	2,082	95,282,311	220,649,358	45,764	105,979
% of Increase .	6.3	121.6	32.9	108.5	25.0
1900	1,599	99,819,233	258,969,580	62,426	161,957
% of Increase .	-23.2	4.8	17.4	36.4	52.8
1905	1,316	122,526,093	320,107,458	93,105	243,243
% of Increase .	-17.7	22.7	23.6	49.1	50.2
% of Increase, 1880-1905 .	-32.8	184.9	92.8	324.2	188.1

establishments as compared with 1880 of seventeen, and as compared with 1890 of thirty-two. In this industry, as elsewhere, the capital per establishment and the value of the output per establishment have considerably increased, although not so largely as in some others. In 1905 the average capital per establishment was \$93,105 and the value of the output per establishment \$243,243, a ratio of one to two and a half. This ratio, like that of the meat industry, is much higher than the average.

Leather gloves and mittens (Table 23) illustrate an industry in which the number of manufactories has steadily increased

TABLE 23. LEATHER GLOVES AND MITTENS — COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1850-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1850	110	181,200	708,184	1,647	6,438
1860	126	594,825	1,176,795	4,720	9,339
% of Increase .	14.5	228.3	66.2	186.6	45.1
1870	221	2,340,550	3,998,521	10,590	18,092
% of Increase .	75.4	293.5	239.8	124.3	93.7
1880	300	3,379,648	7,379,605	11,265	24,598
% of Increase .	35.7	44.4	84.6	6.4	35.9
1890	324	5,977,820	10,103,821	18,450	31,184
% of Increase .	8.0	76.9	36.9	63.8	26.8
1900	381	9,004,427	16,721,234	23,633	43,887
% of Increase .	17.6	50.6	65.6	28.1	40.7
1905	339	10,705,599	17,740,385	31,579	52,331
% of Increase .	-11.0	18.9	6.1	33.6	19.2
% of Increase, 1850-1905 .	208.2	5,808.2	2,405.0	1,817.4	712.8

until it was threefold as great in 1905 as in 1850; but the capital per establishment and value of the products per establishment increased at a much greater rate. In the respect of increase in number of establishments there is contrast between this industry and the manufacture of boots and shoes.

TABLE 24. COTTON GOODS—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1850-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1850	1,094	74,500,931	61,869,184	68,099	56,533
1850	1,091	98,585,269	115,681,774	90,362	106,033
% of Increase .	-0.3	32.3	87.0	32.7	87.5
1870	956	140,706,291	177,489,739	147,182	185,658
% of Increase .	-12.4	42.7	53.4	62.8	75.1
1880	756	208,280,346	192,090,110	275,503	254,087
% of Increase .	-20.9	48.0	8.2	87.2	36.8
1890	905	354,020,843	267,981,724	391,183	296,112
% of Increase .	19.7	70.0	39.5	42.0	16.6
1900	973	460,842,772	332,806,156	473,631	342,041
% of Increase .	7.5	30.2	24.2	21.1	15.5
1905	1,077	605,100,164	442,451,218	561,838	410,818
% of Increase .	10.7	31.3	32.9	18.6	20.1
% of Increase, 1850-1905 .	-1.7	712.1	615.1	724.9	626.2

TABLE 25. WOOL MANUFACTORIES—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1860-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1860	1,476	38,814,422	73,454,000	26,297	49,765
1870	3,208	121,451,059	199,257,262	37,858	62,112
% of Increase .	117.3	212.9	171.3	43.9	24.8
1880	2,330	143,512,278	238,085,686	61,593	102,183
% of Increase .	-27.4	18.2	19.5	62.7	64.5
1890	1,693	245,886,743	270,527,511	145,237	159,792
% of Increase .	-27.3	71.3	13.6	135.8	56.4
1900	1,414	310,179,749	296,990,484	219,363	210,035
% of Increase .	-16.5	26.1	9.8	51.1	31.5
1905	1,213	370,861,691	380,934,003	305,739	314,043
% of Increase .	-14.2	19.6	28.3	39.4	49.5
% of Increase, 1860-1905 .	-17.8	855.4	418.6	1,062.6	531.0

The cotton and wool manufactories (Tables 24 and 25) afford cases in which the number of establishments has decreased (for cotton slightly, and for wool considerably), and in which the concentration has been in the increase of the capital and the output per establishment.

Hosiery and knit goods (Table 26) illustrate a product in which the number of establishments has increased very

TABLE 26. HOSIERY AND KNIT GOODS—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1860-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1860	197	4,035,510	7,280,606	20,485	36,957
1870	248	10,931,260	18,411,564	44,078	74,240
% of Increase .	25.9	170.9	152.9	115.1	100.9
1880	359	15,579,591	29,167,227	43,397	81,246
% of Increase .	44.8	42.5	58.4	-1.6	9.4
1890	796	50,607,738	67,241,013	63,578	84,473
% of Increase .	121.7	224.8	130.5	46.5	4.0
1900	921	81,860,604	95,482,566	88,882	103,672
% of Increase .	15.7	61.8	42.0	39.8	22.7
1905	1,079	106,663,531	136,558,139	98,854	126,559
% of Increase .	17.2	30.3	43.0	11.2	22.1
% of Increase, 1860-1905 .	447.7	2,543.1	1,775.6	382.6	242.4

greatly, since in 1905 there were more than five times as many as in 1860. The capital per establishment is nearly five-fold, and the value of product per establishment nearly three and one half fold. Thus we have here concentration so far as size of establishments is concerned, but not concentration of establishments. The reason for the contrast in tendency so far as number of establishments is concerned between hosiery and knit goods and cotton and woolen is not clearly apparent. All are industries in which invention and improvement of machinery during the past fifty years has been most marked; but it may be suggested that the

size of the machines is not nearly so great in hosiery and knit goods as in cotton and woolen manufacture.

In silk manufacture (Table 27), the number of establishments from 1860 to 1905 has multiplied more than fourfold, the capital per establishment more than eightfold, and the output per establishment more than fourfold. This

TABLE 27. SILK MANUFACTORIES—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1860-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1860	139	2,926,980	6,607,771	21,057	47,538
1870	86	6,231,130	12,210,662	72,455	141,984
% of Increase .	-38.1	112.9	84.8	244.1	198.6
1880	382	19,125,300	41,033,045	50,066	107,416
% of Increase .	344.2	206.9	236.0	-30.9	-24.3
1890	472	51,007,537	87,298,454	108,066	184,954
% of Increase .	23.6	166.7	112.8	115.8	72.2
1900	483	81,082,201	107,256,258	167,872	222,062
% of Increase .	2.3	59.0	22.9	55.3	20.1
1905	624	109,556,621	133,288,072	175,571	213,603
% of Increase .	29.2	35.1	24.3	4.6	-3.8
% of Increase, 1860-1905 .	348.9	3,643.0	1,917.1	733.8	349.3

industry affords a contrast to the manufacture of hosiery and knit goods and wool manufactories in the great increase in the number of establishments.

Combined textiles (Table 28) show very well the normal tendency for increase of concentration per establishment. The number of establishments from 1850 to 1905 increased fivefold, the capital per establishment nearly eightfold, and the value of the output per establishment over sixfold.

For *needles, pins, hooks, and eyes* (Table 29), the number of establishments, while greater than in 1860, is less than in 1870. In 1905 as compared with 1860 the capital per establishment is sixfold and the value of the products more

TABLE 28. COMBINED TEXTILES (COTTON GOODS, COTTON SMALL WARES, HOSIERY AND KNIT GOODS, WOOL MANUFACTURES, SILK AND SILK GOODS, FLAX, HEMP AND JUTE PRODUCTS, DYEING AND FINISHING TEXTILES)—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1850-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1850	3,025	112,513,947	128,769,971	37,195	42,568
1860	3027	150,080,852	214,740,614	49,581	70,942
% of Increase .	.1	33.3	66.8	33.3	66.7
1870	4,790	297,694,243	520,386,764	62,149	108,640
% of Increase .	58.2	98.3	142.3	25.3	53.2
1880	4,018	412,721,496	532,673,488	102,718	132,572
% of Increase .	-16.1	38.7	2.3	65.3	22.0
1890	4,276	767,705,310	759,262,283	179,538	177,564
% of Increase .	6.4	86.0	42.5	74.8	33.9
1900	4,312	1,042,997,577	931,494,566	241,883	216,024
% of Increase .	0.8	35.8	22.7	34.7	21.7
1905	4,563	1,343,324,605	1,215,036,792	294,395	266,280
% of Increase .	5.8	28.8	30.4	21.7	23.3
% of Increase, 1850-1905 .	50.8	1094.0	843.6	691.5	525.5

TABLE 29. NEEDLES, PINS, HOOKS, AND EYES—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1860-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1860	25	453,200	725,086	18,128	29,003
1870	48	801,050	1,225,436	16,689	25,529
% of Increase .	92.0	76.8	69.0	-8.0	-12.0
1880	45	1,564,738	1,748,101	34,772	38,847
% of Increase .	-6.3	95.3	42.7	108.3	52.2
1890	55	2,269,707	2,109,469	41,267	38,354
% of Increase .	22.2	45.1	20.7	18.7	-1.3
1900	52	4,617,552	3,237,982	88,799	62,269
% of Increase .	-5.5	103.4	53.5	115.1	62.3
1905	46	5,331,939	4,750,589	115,911	103,273
% of Increase .	-11.5	15.5	46.7	30.5	65.8
% of Increase, 1860-1905 .	84.0	1,076.5	555.1	539.4	256.1

than threefold. The materials are light as compared with the value; they may be standardized; and thus they illustrate the natural tendency toward concentration. The table is introduced mainly for the purpose of showing that the tendency to concentration may be just as marked with small and relatively unimportant articles as with large and important ones.

Pens and pencils (Table 30) are industries in which the number of establishments has steadily increased, being

TABLE 30. PENS AND PENCILS—COMPARATIVE SUMMARY WITH PERCENTAGES OF INCREASE FROM 1860-1905 BY PERIODS

YEAR	NO. OF ESTABLISHMENTS	CAPITAL	VALUE OF PRODUCTS	CAPITAL PER ESTABLISHMENT	VALUE OF PRODUCTS PER ESTABLISHMENT
1860	15	39,150	134,000	2,610	8,933
1870	32	704,400	827,380	22,012	25,855
% of Increase .	113.3	1,699.2	517.4	743.2	189.4
1880	23	894,247	976,488	38,880	42,456
% of Increase .	-28.1	27.0	18.0	76.6	64.2
1890	41	4,116,247	3,025,664	100,396	73,796
% of Increase .	78.3	360.3	209.9	158.1	73.8
1900	55	3,671,741	4,222,148	66,758	76,766
% of Increase .	34.1	-10.8	39.5	-33.5	4.0
1905	62	7,101,366	7,673,777	114,538	123,770
% of Increase .	12.7	93.4	81.8	71.5	61.2
% of Increase, 1860-1905 .	313.3	18,038.8	5,626.7	4,288.4	1,285.5

sixtytwo in 1905 as compared with fifteen in 1860. The capital per establishment and the value of product per establishment have greatly increased, being respectively fortythree and thirteen times greater than in 1860. While like needles, pins, hooks, and eyes, so far as magnitude of establishments is concerned, the two are unlike in that for pens and pencils the number of establishments has increased.

General statements.—The foregoing tables show that

while concentration has not taken place for every industry, in the great majority of the more important ones, it has been steady and in some cases amazing, being marked by great decrease in the number of plants and relative increase in the magnitude of the plants and the value of the output.

Concentration general.

For certain industries, while the business done by the several plants has increased, the actual number of the plants has increased. However, in most cases the increase in number of plants is much smaller than the increase in the value of the product, showing that even in the cases where there is increase in the number of plants, concentration has been taking place.

The different industries differ greatly among themselves in the ratio between the capital per establishment and the value of the product per establishment. From this point of view for 1905 I shall classify them into three divisions: those in which the value of the product per establishment is less than the capital per establishment by 20 per cent or more; those in which the value of the product per establishment does not differ more than 20 per cent from the value of the capital per establishment; and those in which the value of the product per establishment is greater than the capital per establishment by 20 per cent or more.

Variable ratio between capital and product.

The industries in which the value of the product per establishment is less than the value per establishment by 20 per cent or more are the following: coke; ship building; clay products; salt; manufactured ice; paper and wood pulp, agricultural implements; beet sugar; cotton goods; and of these, in the cases of salt, ice, and beet sugar, the value of the output is less than half the capitalization.

Those industries in which the value of the product per establishment does not vary more than 20 per cent from the capital per establishment are the following: iron and steel; electrical machinery, apparatus, and supplies; glass; lumber and timber products; printing and publishing; tobacco; leather; wool manufactories; combined textiles; needles, pins, hooks, and eyes; and pens and pencils.

Those industries in which the value of the product per es-

establishment is 20 per cent or more than the capitalized value per establishment are the following: petroleum; butter, cheese, and condensed milk; starch; slaughtering and meat packing; boots and shoes; leather gloves and mittens; hosiery and knit goods; silk manufacture; and of these, in the case of butter, cheese, and condensed milk, and meat, the value of the output per establishment is more than three times as great as the capitalization, and for boots and shoes more than twice as great.¹

If there were available detailed histories of each of these industries so that we might know to what extent the capitals of the different classes are inflated and to what extent they represent substance, the very great differences in ratios might be partly explained. Possibly for the slaughtering industry and boots and shoes, we have industries in which there is not over capitalization; whereas in some of the cases where the value of the output per establishment is not more than half as great as the capitalization there may be inflated capitalization.¹

SECTION 6

FORMS OF ORGANIZATIONS

The development of the laws concerning combinations in this and other countries will be considered in another place (see Chapter III); but it is to be said that the principle of statute law, prohibiting restraint of trade, has had a powerful influence in the forms which concentrations of industry have taken. Combinations during their history have passed from those of the loosest kind to those in which there is complete unity of management. The different kinds of associations and combinations may be roughly classified as follows:

(1) *Informal or Formal Associations for the General Protection or Advancement of a Business.*—These are illustrated by the various business associations. Almost every industry has such an association, and some of them many. Thus

¹ The situation regarding concentration of industry in 1900 is fully given in the Reports of the United States Industrial Commission for 1901, Vol. I, p. 1325; Vol. XIII, p. 1013; Vol. XIX, pp. 595-724.

there are associations of brewers, butchers, bankers, hardware men, lumbermen, cattlemen, fruit growers, wine makers, butter makers, and of practically every producing industry. Similarly there are associations of salesmen, wholesalers, and retailers in each of the various industries, whether they be hardware, drugs, dry goods, or groceries. These sales associations may be national, state, or local, or they may be national with state and local branches. The importance of the local associations depends upon the size of the town. The merchants' or manufacturers' association in a great city may have large importance, and the retail grocers' association in a small town may be of little consequence. Not only are there associations of tradesmen and salesmen, but there are associations of people engaged in the same service, teachers, dentists, doctors, laborers, etc. The laborers' association may be for the entire country or for a definite industry, as, for instance, the American Federation of Labor, and the Brotherhood of Locomotive Engineers.

Multitude
of associa-
tions.

The purpose of all of these associations is to advance the interests of the group concerned. This is done in the loosest form of association in the public convention at which views are compared, experiences exchanged, papers presented, the purposes of which are to benefit one another merely by the exchange of information, without any implication whatever that any one will feel impelled to abide by any view presented.

Thus the members of the retailers associations meet and exchange information to the common advantage. One of the items concerning which information is exchanged is as to the manufacturers that sell to the so-called mail order house, the severest competitors of the retailers. The purpose of such information is clearly that the members may buy of wholesalers and jobbers that do not deal with the mail order houses; but now the retailers feel that even such exchange of information with no implication that it will be used as indicated comes under the ban of the Sherman act.¹

Exchange of
information.

Another aim in this exchange of information is to secure

¹ Hearing of Senate Interstate Commerce Committee, XIII, p. 937.

Common
prices.

common prices for standard articles. There need not be, indeed usually is not, a formal agreement in a community or association upon this matter. One way to secure a common price is by means of a printed list or catalog.¹ Even without any formal agreement among the dealers, they all understand that the price list is to be followed. Sometimes these lists are prepared by the retailers, in others by the wholesalers or jobbers. In the latter case the catalog gives the retail prices and the retailer has a discount from the printed price. An excellent illustration of this plan of regulating prices is furnished by wire rope. The manufacturers have a common catalog which they distribute to the retailers and the retailers all sell at the list price. The Southern Wholesalers' Association printed lists of prices for the information of its members until enjoined by the court. It might be supposed that a loose arrangement of this kind would not work; but as a matter of practice it is successful. A. F. Huston² well states the force which holds men to the understanding in the following words: "Let me say that it is a general broad principle that if a certain price is felt to be a fair and right price, each one for himself feels that he ought to maintain that price and not vary from it to the detriment of his fellows without he should let them know, but without any agreement, express or implied, to that effect." However, in some cases the understood prices are departed from. In such a case, if one decides to cut a price, the others may remonstrate; but if he persist, except it be as a leading line for a short time, the others may meet the cut, and a new minimum be fixed. Similarly as a result of informal discussion of the conditions of the market, prices are put up or down in unison.

The regular and uniform rise and fall of the price of anthracite during any year illustrate the situation. In early summer the price is the lowest; it is increased by regular increments as the autumn comes on. The price is the same in a given community from each dealer for purchases at a given

¹ Investigation U. S. Steel Corporation, 10, pp. 604-615.

² Investigation U. S. Steel Corporation, 11, p. 693.

time under similar circumstances. The result is almost as certain and as uniform as if it came about by formal agreement put into legal form.

The stage of the association for exchange of information easily passes into the second phase in which regulations are adopted by the association to control the actions of its constituents; as, for instance, methods to be pursued in advertising, quotations, and even scale of prices. Actions of this kind are well illustrated by the brewers' association, which decides as to the price to be charged for beer in the retail trade, issues regulations about rebates to retailers, and even goes into such minor details as the treating of drivers, and the extent to which favors are to be given by advertising, etc.

Regulations
of associa-
tions.

When the members of an association are numerous, the extent to which they coöperate in these respects is a matter of public knowledge; but in case an industry is concentrated in several or at most a few corporations, a secret gentlemen's agreement may be reached which acts powerfully in restraint of trade. Thus it is charged that at the weekly meetings of the Chicago packers, which in the past regularly occurred, a definite understanding was reached as to field of operation, output, prices, and margins, which were to obtain for the following week.

Secret
agree-
ments.

Similarly it is charged that at the so-called Gary dinners an informal understanding was reached concerning these points for iron and steel. What happened, according to Mr. E. H. Gary, was that the steel makers met together and exchanged information with reference to one another's affairs, their outputs, prices, etc., in order that each might have full knowledge of the transactions of other producers to guide his own judgment. In the case of the Chicago packers there can be little doubt that the understanding was much more definite than in the case of the steel conferees; but so far as the public was concerned, the results were substantially the same; output was regulated, prices were maintained.

Informal
understand-
ings
binding.

It is charged also that the group of men who control the anthracite industry meet regularly to fix output and prices at the various commercial centers, and that this practice has

Anthracite
coal prices
fixed.

been in vogue for many years. That this charge is true can scarcely be doubted, although it might not be easy to prove. Also, there is no doubt that the railroads in the early stage of their coöperation entered into agreements and understandings as to the portion of business to be handled, the prices to be charged, and rebates to be allowed.

Similarly it is charged that produce exchanges agree upon and control prices; thus it is stated that the association of butter makers centering in Elgin fix prices on dairy products, and especially butter, for a large part of the country.

The character and influence of these associations have become widely known through the prosecutions by the United States Attorney-General under the Sherman anti-trust act. One of these, the Southern Wholesalers' Association, without going to trial, admitted many of the practices above described and accepted a comprehensive decree enjoining the members from coöperating. A number of other associations, illustrated by the lumber associations, are under attack. These cases bring clearly to light the real significance of a form of organization which pervades the commerce of the country.

While associations formal and informal are the least definite of the various combinations, they are probably the most important because their scope is coextensive with the country and with its business.

(2) *Formal Agreements.*—In certain lines of business, corporations have made definite agreements about the management of the business of the uniting parties. The arrangements, usually called pools, (1) divided the production in a definite manner between the different companies; (2) divided the markets; (3) regulated the sales for the home market, perhaps leaving freedom in the matter of export; or (4) placed the entire profits in a common fund or pool to be divided according to an agreed plan. With the foregoing features, there sometimes went agreements as to prices; but this was not essential, since when controlling outputs, dividing markets, regulating sales, and apportioning profits, it is to the interest of all to keep prices at a high level.

Pools.

As the railways developed in this country, competition became so severe as frequently to lead to operation at a serious loss. Relief from this situation was found by pools under which the business between two points was definitely divided, and an agreement was made as to rates. Thus it might be agreed that each of the trunk lines between Chicago and New York should handle a definite percentage of the business.

Railway
pools.

The pool so largely used by the railroads was also extensively applied to the industries. Under the manufacturers, pools, which began as early as 1860, each manufacturer was usually allotted a certain percentage of the business. A manufacturer who received more than the allotted percentage paid into the pool a sufficient amount to balance the excess; while the manufacturer who received less than his percentage received from the pool a sum sufficient to make up the deficiency. The business was done through a supervisor who acted in the capacity of a clearing house. For violation of the agreements of the pool, penalties were imposed upon its members usually in the way of fines or a percentage charge on business done outside the pool.

Industrial
pools.

Pools are very well illustrated by the numerous agreements which were made by the iron companies among themselves before the organization of the United States Steel Corporation.¹

In the case of the Michigan Salt Association, the organization developed to a state intermediate between the pool and the trust. This association, formed in 1876, soon controlled 85 per cent of the business of the state. The stockholders were the salt manufacturers of the state; and each manufacturer was allowed shares in the association in proportion to his production. The capitalization of the association was nominal. The association fixed the output of salt for each manufacturer and managed the entire selling business, including the determination of prices. The manufacturer gave up the entire management of his business to the Salt Association, excepting the running of his manufactory.² (See pp. 101-103.)

The
Michigan
Salt
Association.

¹ Investigation U. S. Steel Corporation, 24, pp. 1813-1817.

² "Pools and Trusts," *Quarterly Review*, Vol. 199, p. 185.

Fruit
growers'
exchanges.

Very analogous in form of organization and conduct of business to the Michigan Salt Association, long since dead, are numerous fruit growers' exchanges. Some of these exchanges are district in their character, precisely as was the Michigan Salt Association. In others the district exchanges first formed have gotten together into a national exchange. In some instances such an exchange handles as much as 80 per cent of the entire crop. The stockholders of the exchange for a definite fruit or group of fruits are those engaged in growing the product. The exchange is usually a selling agency, charging commission for its services. While a fruit grower may sell a part of his crops other than through the agency, he pays the same commission that he would if the entire crop were disposed of by the exchange.

When the crop of fruit begins to come upon the market, the exchange sets a price for a certain period, which may be raised at the beginning of a second period and again at a later period. For fruits that keep well the usual plan is to start the price sufficiently low so that the fruit will begin to be marketed promptly, and to advance the price rapidly enough so that there will be a supply to the normal termination of the season. For some fruits the prices for early products may be high; later the prices are reduced; and still later, when the height of the season is over, they are again advanced. If prices be placed too high, some of the fruit will go to the dump at the end of the season; if they be placed too low, there will not be a sufficient amount to supply the market during the latter part of the season. To carry out wisely the above plans, careful estimates are made of any crop for the year. Inspectors are employed by the exchange to supervise the harvesting, storing, sorting, packing, and shipping of the fruit so as to get definite and uniform grades, and to have the fruit shipped under the most favorable circumstances. The growers retain their own brands.

Advantages
of exchange.

The fruit exchanges do not regulate output; they do control prices; they aim to get the product as directly as possible to the jobbers and grocers without falling into the hands of

speculators. The marketing costs are lessened by the exchange. Prices start at a reasonable level and have graded changes so that the producers are sure of a fair return. The public cannot be disregarded in fixing prices, since one kind of fruit competes with another, and since to a certain extent fruit is an abundant but desirable luxury which will not be disposed of if the prices are excessive. Products are inspected and standardized. It would seem that the credits due the fruit exchanges are considerable; that the public is better off than under the old hit or miss methods of disposal of the crop which have sometimes been characterized as mob methods; and that exchanges should be encouraged and retained.

These fruit growers' exchanges are illustrated by the Fruit Growers' Association of California.¹ For this exchange the contract between the grower and the local association requires that the grower shall sell only to the association, and that if he fails to pack and deliver his fruit within five days after demand is made upon him the association may enter the orchard, take possession of the premises, pick, pack, and market the fruit, all at the expense of the owner. The district exchanges of this association are under contract to sell only to the general exchange and as called for by that exchange. It is perfectly clear that the purpose of the citrus fruit growers of California is the control of the market.

Other lines of coöperation² among the farmers are the elevator systems for marketing grain and the warehouse exchanges for marketing cotton. It is said by Mr. E. H. Collier that there are in the neighborhood of twenty-five hundred or three thousand buying or selling organizations in the United States which are in the interests of better prices.³

Mr. T. J. Brooks, representing the Farmers' Educational Coöperation Union, suggests that since these farmers' coöperative associations are so advantageous they should be exempted from the prohibition of the Sherman antitrust law.⁴

¹ Hearings, Interstate Commerce Committee, XXVI, pp. 2336-2353.

² Edward G. Dunn, *Farm and Fireside*, March 16, March 30, April 13, 1912.

³ Hearings, Interstate Commerce Committee, p. 1344. ⁴ *Ibid.*, p. 2337.

This is an appropriate suggestion, for it can be asserted without fear of contradiction that fruit exchanges organized as indicated are as clearly in violation of the Sherman anti-trust law as the selling agencies of manufacturers which have been declared to be illegal by the courts.

If the farmers' selling agencies are admitted to be beneficial to the farmers and to the public, it may be said that fully as strong a case may be made for other selling agencies, among which is coal. Yet when a number of coal operators whose market was Chicago conceived the idea of establishing a selling agency which did not combine more than four per cent of the consumption of that market, they were warned by the federal authorities that such action would be combination in restraint of trade.¹

The pools in the seventies and early eighties occupied an important place in the development of combination; their chief reign was from 1879 to 1887, about ten years. With the passage from the partnership to the corporation, the principles of the law applicable to individuals and to partnerships were carried over to corporations. But the pool was in effect a partnership of corporations, or at least, if not a partnership, such coöperation of corporations, as to amount substantially to the same thing. Partnerships of corporations were illegal, and consequently the pool contracts were non-enforcible.²

The non-enforcible agreement gave the pools a fundamental weakness. Any member that became dissatisfied could withdraw at any time. Also, since the courts refused to enforce the arrangements made under pools, compliance with the regulations depended exclusively upon the honor of those entering them; and, in consequence, there were frequent secret violations of the pool agreements. A railroad or a manufactory would exceed its percentage, or in order to get business would reduce rates. Further the men and corporations entering into the pools were in danger of penalties from the courts. As we have already seen, the selling agency,

¹ Hearings, Interstate Commerce Committee, XXVI, pp. 2320-2321.

² "Trusts of To-day," G. H. Montague, pp. 144-145.

Reign
of the
pools.

Weakness
of pools.

having many of the weaknesses of the pools, still retains an important place in business.

(3) *Trusts*. — Since the pool was a failure, in order to attain the objects striven for by it, the trust was devised. Under the trust, each unit of the combination transferred its stock to trustees. Thus the entire stock of the constituent companies was held by a group of trustees who had complete authority over the business of all the companies entering into the trust. An establishment or company retained its own officers and conducted its business, but under the direction of the trustees, as to line of product, amount of output, and price. The trust was able to prevent overbuilding and overproduction, to prevent competition in price between its units, to apportion business, to consolidate buying and selling, and thus gave all the advantages of unity of organization, as described, pp. 8–20, due to concentration of industry. Well-known types of this organization were the Standard Oil trust, the sugar trust, the cotton-seed oil trust, the whisky trust. The great period of the trust was from 1888 to 1897.

If the pool was a partnership of corporations, it was even more clear that the board of trustees controlling the business of a number of corporations through their trust certificates was such a partnership. In consequence of this, in the late eighties trusts were declared to be illegal, and this led in the early nineties to the next stage of combination.

(4) *Holding Corporations*. — Under the trust each of the constituent companies was an independent legal entity. The stock was simply placed in the hands of the trustee for management. In the holding corporation, the stock is transferred to the holding concern so that this corporation actually owns the stock of the constituent companies. So far as management and operation are concerned, the situation is precisely the same as under the trust and the advantages the same, only the constituent companies are subsidiary companies instead of nominally independent. The subsidiary company maintains its officers, carries on its business, and competes so far as efficiency is concerned with

the other companies of the combination; but as to nature and quantity of output and price, the policy is completely controlled by the corporation of which it is a constituent member. The era of the holding corporation began in the nineties, and has extended through that decade and the first decade of the twentieth century. Great examples are the Standard Oil Company and the United States Steel Corporation.

While some of the holding corporations have remained merely managing companies, others of them, and some of the more important, have also become manufacturing companies. In these instances some plants are under the direct management of the directors of the corporation, while other parts of the business are run by subsidiary companies. This stage of development is intermediate between the strictly holding corporation and the merger, next to be spoken of.

Under the common law the stock of one corporation could not be held by another; therefore the holding corporation was declared to be invalid.¹ This situation was met by the enactment of corporation laws under which it was valid for a corporation to hold stock of other corporations. The first of the states thus to reverse the common law principle was New Jersey. She has been followed by several others, notable among which are Delaware, West Virginia, and Maine. The liberal, not to say lax, corporation laws of these states have led to the holding corporations being organized under their laws, and mainly under the laws of New Jersey and Delaware. According to Frederick W. Kelsey, the state of New Jersey profits to the extent of over \$3,000,000 per annum because of its pioneer position in passing liberal corporation laws.

However, the corporations which are in whole or in part holding companies, organized under the laws of these states, are now being attacked in the United States Court. In 1911 orders were given for the dissolution of the Standard Oil and the American Tobacco companies, the first of

¹ *People v. Chicago Gas Trust Co.*, 130 Ill. 268; also other cases.

² Hearings, Interstate Commerce Committee, XVII, p. 1358.

Holding
corporations also
manufacturing ones.

state
laws come
to the
rescue.

Holding
corporations
attacked.

which was strictly a holding company and the second of which was both a manufacturing and holding company. (See pp. 181-187.) Many other holding corporations are now attacked by the Attorney-General of the United States and must fight for their existence.

The holding corporation began in 1897, but the great consolidations did not begin until in 1899, since which time the holding corporation has been the dominant form of consolidation.

(5) *Complete Merger*. — This is the final stage in concentration of management. The stock of the constituent companies of the combination is actually bought in and canceled, the only stock being that of the master company. If, for instance, the different companies of the United States Steel Corporation — the Federal Steel, the Carnegie Steel, and others — cease to exist by their stock being canceled and stock of the Steel Corporation be the only existing issue, we should have the final stage of corporation management for this gigantic company.

Coming
of the
complete
merger.

Since the recent decisions of the United States Supreme Court (see pp. 180-181), which seem to indicate that holding companies will be in a stronger position if they are actually manufacturing companies, it is easy to predict that the great consolidations, now forming, so far as practicable will become unified corporations. The merger began to become important about 1904, and since that time its growth has steadily continued, although, as already pointed out, the holding company is still the dominant form of concentration.

Just as the pool, the trust, and the holding corporation have been successively attacked in the courts, there can be little doubt that the great merger will also there be attacked. Indeed, for intrastate commerce such attack has already been begun. For instance, the Diamond Match Company which bought outright the properties of competing concerns engaged in the manufacture of matches, was declared to be an illegal monopoly in the state of Michigan.¹ Similar attack is likely to follow for interstate commerce under the Sherman act.

The
merger on
defense.

¹ Richardson v. Buhl, 77 Mich. 632.

the laws
have ac-
celerated
consolida-
tion.

General Statements. — It is to be noted that the development from pool to trust, from trust to holding company, from holding company to complete consolidation, has been accelerated by the laws which exist in restraint of trade. The dissolution of pools by the courts led to the trust; the dissolution of the trust led to the holding corporation; the dissolution of the holding corporation at the present time is now leading to the consolidated company.

The actions which have led to the above development have been partly under common law and partly under statute law. The common law, forbidding unreasonable restraint of trade, may be invoked to prevent any form of pool, trust, holding company, or merger, which goes to the point of producing monopoly. Actions under statute law, to be successful, must of course comply with its terms, somewhat variable in the different states. (See pp. 192-200.)

Other accel-
erating
causes.

By the above statements it is not meant that the law against restraint of trade is the only cause which has led to the development described. As we have seen, pp. 192-200, fierce and unrestricted competition has led directly to combination, or else elimination of the weaker by destruction, until the remainders are reduced to a manageable number, usually all strong and at least of the same order of magnitude, if not exactly the same size, when they combine. Also there are other important factors leading to combination which have been discussed, pp. 8-20.

SECTION 7

THE KINDS OF COMPETITION

There are different kinds of competition. For present purposes the more important are, competition in quality, competition in price, and competition in service.

(1) *Competition in Quality.* — The better the quality, the easier it is to do business. For certain articles the quality is easily determined and so becomes a very important factor in competition; for other things it is not easy to settle.

With such articles as tea, tobacco, coffee, the quality is not an absolute thing, but depends upon the taste of the customer. We frequently hear the story of the retail dealer who takes a chest of a poor or medium quality of tea, divides the same among three caddies upon which he puts prices of thirty-five cents, sixty-five cents, and one dollar per pound. A person who can afford to pay but thirty-five cents quickly takes that kind; the person who is able to afford somewhat more takes from the intermediate caddie; the third, to whom the matter of a dollar is of little consequence, at once takes the tea having the highest price.

The same
tea with
three
prices.

There is no doubt that this sort of performance has occurred and is occurring at the present time upon an extensive scale in thousands of retail shops.

If for such articles as tea, tobacco, and coffee there is no definite standard, this is even more markedly so with the so-called "articles de Paris," or if we use the American term, "Yankee notions." There is no standard by which the price of a lady's hat can be fixed. The price that is charged usually depends more upon the make-up than upon the cost of its materials. Indeed in this class of goods the artistic quality enters, or if not the artistic quality at least the conventional quality, which itself has a market value, and this makes impossible any standardization. The price of a hat is very largely fixed with reference to what the traffic will bear. Thus a lady's hat in a town in which the customer is able to pay \$50 might have a price one fifth of that amount in a town in which the customer was able to pay only \$10. Another illustration: The success of the manufacturer of silver articles who wishes to sell his goods in India will depend very largely upon producing forms which please the Indian taste. Thus for many articles, whether or not a sale is made depends not only upon the cost of the material in the article, but upon whether it pleases the customer. Competition in these lines of business is not close because there is no basis upon which to compare prices.

Yankee
notions.

The value
of a lady's
hat.

From the class of articles in which success in business depends not upon standardization or upon cost, but upon

adaptability to the customer, we have every stage to those in which the material of the article becomes the chief factor.

(2) *Competition in Price.* — When we come to deal with articles the quality of which may be definitely determined competition immediately enters in price, and becomes more and more important as we approach standard products. Granulated sugar is a standard article, which is the same whether purchased of one dealer or another; the same is true of oil, which has a certain fireproof test; and to a large extent is true of cement and coal, at least they may be made to meet standard tests. The same is true of the more important forms of steel rails, structural forms, etc., and for many other products. For articles in which quality is standardized, competition enters mainly in the matter of price. These standard articles, as we have seen, are also those which usually have very wide use, and are those which are especially subject to combination.

Competition in price is the one in which the public as a whole is most deeply interested. Indeed, this is so dominant in the minds of many, that the securing of a fair price is regarded as the sole purpose of the competitive system. In purchasing, the price that one can afford to pay is the paramount consideration for all but a minute fraction of the people. This applies alike to the man or woman buying the necessities of life for the family and to the lady in the middle walks of life purchasing clothes or jewels. The number of people who can afford to ignore the question of price is less than one per cent of the population. It is the general belief that competition is the best means of securing a fair price that has held many with unswerving faith to the competitive system.¹

¹ The best formulation of this faith which I have seen is that of General Roger A. Pryor, as follows:—

“1. Competition between buyers of the raw material enhances the price to the producer.

“2. Competition between sellers of the manufactured article reduces its price to the consumer.

“3. Reduction of price multiplies the number of consumers.

“4. Increase of consumption stimulates production to supply the increased demand.

(3) *Competition in Service.*—In addition to competition in quality and in price there is competition in service. This is best illustrated by those cases in which competition does not exist for the first two. Thus in standard articles in a town, such as ice, there is no competition in quality; there is no competition in price; the only competition is in service. Similarly for railways, now that competition in prices has ceased, competition is reduced to the nature of the service,—the number of trains run, the convenience of the schedules, the excellence of the cars, etc.

It is in the matter of competition in service that the personal element largely enters. Where quality is standardized and the price is the same, the decision as to where one shall deal depends upon the agreeable qualities of the firm. Are the employees polite and considerate? Is the service promptly rendered? These factors are so important that agents having a pleasant personality and a persuasive way of putting things are highly paid by corporations, their sole business being to show that the service rendered will be of the highest quality and the attention of the best. So important is this factor of service that many, indeed a majority, of the people are influenced by it in the selection of the firm with which they will deal; and with the well-to-do it is frequently the dominating consideration. Even where competition in quality and in price are eliminated there may be the keenest competition in service.

The personal element in competition

“5. Increase of production implies an increase in the employment of labor.

“6. Competition between the employers of labor enhances the wages of labor.

“7. Enhancement of the wages of labor involves the material and moral amelioration of the condition of the laboring class.

“8. Competition to sell stimulates to improvements in the quality of the article offered.

“9. Competition to sell urging reduction in the cost of the article, ingenuity is quickened to the invention of expense-saving and labor-saving machinery, and so a stimulus is applied to the progress of the useful arts and sciences.

“In short, competition ministers to the welfare of all classes of the community, and augments the resources and power of the state. But the evil of excessive competition is counteracted and arrested by the principle of self-interest and the operation of the law of supply and demand.”

SECTION 8

THE BREAK-DOWN OF COMPETITION

The Faith in Competition. — Competition for the control of prices and quality of goods has been a faith which has been believed in by the great majority of people of America; it has been the fundamental principle of the common and statute law upon which our court decisions controlling trade have been built up. Every proposal to legalize coöperation in trade has been stoutly resisted as interfering with the inflexible law of competition, the bulwark of our industrial liberty.

The producer may do as he pleases with reference to quality; he may ask the price he can get; but he cannot combine with another producer in the regulation of price or do anything which may be interpreted to interfere with complete independence in trade. The theory is that the quality will be kept up and the price kept down by competition, and that the purchaser needs no further protection.

The Failure of Competition adequately to regulate Quality. — This faith in the power of competition has gone so far in the past that any manufacturer might call an article by any name he pleased, provided the name did not have a trade mark, regardless of whether or not it had any relation to the product so labeled. An article could be called pure fruit jelly and have no fruit in it; it could be called corn whisky and not a grain of corn be used in its manufacture; it could be named strained honey and a bee never have had anything to do with its making; it could be called maple sirup and never a drop of maple sap have entered it; it could be called butter and have no relation with milk or cream; it could be called boneless chicken and consist of immature veal. A hundred other illustrations could be given. As already indicated, if the producer could to his own advantage use names that had no relation to the product, he did so. The purchaser was not obliged to buy. If he wished an article

The failure
of competi-
tion to
prevent
fraud.

which had a relation to the name, he was to ascertain this for himself.

These practices have obtained both for intrastate and interstate commerce until within a few years; but now a large number of states (see p. 245) have pure food laws. Most of these laws are comprehensive in their character and they apply to all foods, drugs, and drinks. To illustrate, it is no longer possible to sell oleomargarine as butter; indeed, it is not possible in some of the states to color oleomargarine in such a manner as to make it appear like butter to the user. Finally, after many years of struggle against tremendous opposition, a comprehensive pure food law was passed in 1906 by Congress, under which the same principles which had been applied in some of the states for intrastate commerce were applied to interstate commerce.

Pure food laws.

In addition to the pure food laws, some states have enacted laws prohibiting the importation of weed-infested seed, regulating the importation of nursery stock, especially to prevent the spread of insect pests, and requiring that fertilizers shall meet definite standards.

Thus for food and drugs it may now be said to have become an accepted principle that competition in the control of quality has broken down, and similarly that competition has not furnished sufficient protection in certain other classes of commodities. For protection to the customer in these matters of fundamental importance we now understand that we must depend upon regulation. This regulation has for its basis law; but the success of the laws has been dependent upon the creation of special machinery other than the courts for their enforcement, viz., administrative commissions, etc. (See pp. 245-247.)

Competition has failed to secure quality.

While there is a wide range of articles in which competition as a regulator has been abandoned, there are many articles in which competition is left as the guard. Thus a dealer may sell cloth as pure silk which is largely composed of cotton; he may sell cotton as linen; he may sell shoddy as woolen. While these things may be contrary to law, the public, as a

The feeble guard of competition

matter of fact, is wholly unprotected; for the law is not enforced. Quality, so far as it is satisfactorily controlled, is securable only through law as administered by commissions or other special officers under a broad exercise of the police power.

The Failure of Competition adequately to regulate Price. — During the same time that competition has ceased to control quality there has been a break-down of competition in the control of prices. This is now admitted for the so-called public utilities. It was the theory in the early days of railroad building that we must get as many lines as possible and have them compete in charges. The frightful wastes of that method, bankruptcy, receiverships, financial depression, alternately excessively high and low rates, show that for this line of business competition in price is a hopeless failure; and it is now a tacitly accepted doctrine that so far as railroads are concerned, prices for the same manner of service, whether freight or passenger, between two points is to be the same over the different lines. This is done through mutual understanding of the supposed competing lines. That a half-dozen railroads between New York and Chicago could have the same complicated freight schedules for all classes of articles without coöperation is incredible. Everybody knows the rates are agreed upon by the various traffic associations. Yet such coöperation and agreements are just as illegal as they have ever been in the past. The parties to them under the law are subject to criminal and civil prosecution; yet nobody prosecutes; nobody complains. Why is this so? Because the public through its commissions is able to secure fair rates. So far as interstate commerce is concerned, the price is fixed by the railroad and controlled by the Interstate Commerce Commission. Within many of the states, the prices are fixed by the corporations, but may be modified by the commissions.

In cities the street car lines, gas companies, and electric companies, each have monopoly in a given city, or the two or more agree upon identical rates. Competition has ceased to control prices. Where prices are controlled it is through a public utilities commission.

Railroads
do not
compete
in price.

Public
utilities do
not compete
in price.

Just as there has been a complete collapse in competition in prices for railroad transportation and city utilities, so there has been complete collapse in charges for communication. The post office is a public monopoly; the rates are fixed. The telegraph business of the country has become consolidated into two great corporations the prices of which are identical. The telephone business is now mainly under the control of a single corporation. The foregoing facts show that the only present effect of the theory that competition gives adequate control of prices, so far as the railroads and other public utilities are concerned, is to bring the law into contempt.

Closely allied to the natural monopolies are the great companies which for each industry are controlled by a single organization or by a number of organizations working together under open or secret agreements or understandings and not competing in price. Here are included anthracite, steel, oil, beef, whisky, sugar, and other great industries. When prices are maintained at the same level for steel rails for a decade during times of panic and great expansion alike, it is certain that competition has ceased to control adequately prices for iron products. The same applies to anthracite, oil, and many other commodities.

Trusts do not compete in price.

For some articles, the producers, instead of uniting their concerns and informally agreeing on prices, have united in a selling agency and in this way succeed in holding up the prices and maintaining a like price for each producer. Thus the Michigan Salt Association, as first organized (see pp. 101, 103), was a selling agency. One of the largest of the selling agencies is the United Metals Selling Company. It markets upward of 500,000,000 pounds of copper annually. It is the sales agent for the Amalgamated Copper Company and affiliated corporations. The commission charged the Amalgamated was $1\frac{1}{2}$ per cent before 1906, but now is 1 per cent. The company has been highly successful, having paid dividends upon its capital stock of \$5,000,000 of from 20 to 30 per cent since 1904, with one extra 50 per cent dividend in 1909.

Selling agencies.

At one time there was a producers' association for oil, the association selling only through its regularly appointed agencies, and only to the refiners' association and its members.¹ In a like manner the manufacturers of wall paper organized a selling company to handle their entire output, selling only to such persons as entered into a prescribed agreement; but this organization got into court, was declared to be illegal, and was therefore dissolved.²

Selling agencies in the industries have existed in a number of lines, but there is a tendency at the present time for them to disappear so far as manufacturers are concerned, since it is recognized that they are violations of the laws, national and state.

Selling agencies among farmers.

While the selling agency is disappearing among the manufacturers, coöperative selling agencies are arising among the farmers. These are illustrated by the fruit growers' exchanges of the West in Washington, Oregon, and California, by the nut growers' associations of the South; indeed at the present time all over the country there is a strong movement for coöperation of the farmers not only to buy through coöperative associations, but to form selling associations for marketing their products (see pp. 66-68).

Bad and good selling agencies.

The selling agencies of the manufacturers which have held up prices have been denounced. The proposals to create selling agencies for the farmers' products have been generally commended. It is difficult to see wherein the principle differs in one case from that in the other. If it is not legal for the copper producers or wall paper manufacturers to have joint selling agencies, it is difficult to see how the fruit producers can legally have such an agency.

To a large extent competition has ceased adequately to control the prices for many articles not in great combinations, and this is true both in the wholesale and retail businesses. The various associations of business men have, as one of their chief purposes, the maintenance of prices. Many articles which are protected by patents or trade marks are

¹ Tarbell's "History of Standard Oil Company," Vol. I, p. 341.

² Continental Wall Paper Company v. Louis Voigt & Sons, 212 U. S. 227.

sold to the dealers only on condition that the prices fixed by the manufacturer shall be maintained. The manufacturer of a definite automobile apportioned the country into districts and requires of the dealers in each of the districts that the prices fixed by the manufacturer shall be charged. The same thing is true of hundreds of articles, from sewing machines to talking machines, and so on down to an atomizer. In this class of trade there is competition to a certain extent between the different manufacturers; there is no competition between the tradesmen selling the same articles. Frequently the prices for a definite line of goods are held up by agreement or understanding among the different manufacturers producing the same line of goods, they agreeing among themselves regarding the prices which shall be charged by the retailer; and in many cases the different manufacturers are in a definite combination.

How price agreements are maintained.

While the courts would not enforce any penalties for a violation of these agreements, the manufacturer or jobber usually has sufficient power through refusal to sell the article to prevent the agreement from being broken. Thus the saloon keeper who would sell a glass of beer for less than five cents, or who would use a glass holding more than the agreed maximum amount, could no longer purchase beer from the brewers. Through this method of control competition in price has broken down completely among retail dealers for many articles.

Penalties for violation of price agreements.

But this does not indicate anything like the extent to which competition in price has disappeared. The retailers in a given city or community have an association either formal or informal, and there is among the members a definite understanding that prices shall be maintained. It makes no difference from what dealer one buys anthracite, or sugar, or bacon, or flour, or any other standard article, in the majority of the small towns and cities of the country; the price asked by each is the same, with possible slight variations in some cases. It may be that for a time a retailer will cut the price on some standard article in order to increase his trade, in which case there is likely to be a cut by some

Local dealers agree on prices.

other retailer on another standard line in order to equalize this advantage. But soon they get together and the prices are again the same.

For some concerns which have a large part of the business of a town, either through a single retail shop or a number of them, an additional shop may be there established by this firm under another name, apparently in complete independence, in order that there may be an appearance of competition. From time to time if there be danger of outside parties entering the field, the stool pigeon establishment may reduce prices under the direction of the controlling organization.

The extent to which there is combination among the retailers has led Professor Laughlin, of the University of Chicago, before the Senate Interstate Commerce Committee, to testify that competition among retailers has completely broken down. Says he: "We do not have competition; it does not exist. To-day there is really no competition between the retail men who sell meat or groceries to different classes of people."¹

While the statement is substantially true for most communities, it does not fully express the facts for all of them. There still exists competition in prices between the small shops and the great mail order houses. Indeed, this competition is so severe that it is feared by the ordinary retailers, who oppose vigorously a parcels post because they believe that this would make the mail order houses even more formidable competitors. Also there is competition between the small retailers and the great department stores; and since the latter have begun to introduce branch houses in this country as has been done extensively in England, the competition is likely to become more serious. Further, there is competition between the regular retailers and the coöperative stores; but in this country the latter are relatively few in number, although numerous in England.

A statement nearer the truth about the retail trade would be that competition in price for standard articles has ceased to exist between shops of the same class in the same

¹ Hearings, Senate Interstate Commerce Committee, Part XIV, p. 1005.

community. The regular retailer's prices for a town are the same; the prices for the department stores are the same; the prices of the mail order houses are the same.

In short the retail trade is the one in which concentration has not gained dominance; and we are in a transition stage between the old and new order of things. One who has watched the rise of the great department store in this country and England and who now sees their expanding branches, one who has seen the rise of the great mail order house within the last score of years, need have little prophetic sense to realize that concentration is to rule in the retail trade, the same as it has in manufacture. The retail trade as pointed out by Macrosty, is the "last stronghold of competition."¹

Declining influence of competition in the retail trade.

But even in that business competition has largely broken down, and presently there, as elsewhere, coöperation will become general. The small retailer can only hold his place to the extent that he best performs a service to the community.

General Statements. — As to the extent of combinations and agreements in the industries, Mr. Samuel Untermeyer, who certainly ought to know the facts, said before the Senate Interstate Commerce Committee: "I have known of hundreds of them being dissolved where they were under written agreements. There are safes in New York stuffed with the written evidences of these conspiracies with big men's signatures to them. Those are gone, but in their places you have associations for the betterment of trade, etc.; there are any number of dinner and luncheon clubs and reunions and general understandings, winks, and telephone messages, that are far more difficult to get at."²

Agreements in the dark.

If any one doubts the above statement regarding the extent to which there is coöperation in prices in all parts of the United States and in all lines of business, it is suggested that such doubter talk with the business men of the country, from the retailer to the great manufacturer. This the author has done with many, and in no instance has he found

¹ "The Trust Movement in British Industry," H. W. Macrosty, p. 244.

² Hearings, Senate Interstate Commerce Committee, Part V, p. 214.

Testimony
of business
men.

a man who does not say that in his business coöperation exists everywhere and that competition does not control in prices; that they are matters of agreement, formal and informal; that prices are fixed at what seems to the organization as a fair amount, or to such a level as can be maintained without encouraging additional competition.

Limit to
excessive
prices.

In making the statement that prices of many articles, from the great natural monopolies to matches, are controlled by some form of combination or agreement, is is not meant to imply that any price can be charged for an article. There is a limit beyond which, if the price be raised, competitors will enter a business. This so-called potential competition makes the combinations careful not to place the prices at so high a level as to lead to additional competition. Although this is the situation, if the combination be a powerful one, it may go far; for the man thinking of entering the field knows that if he attempts this, the price of the product may be depressed by the great organization, and he fears to enter the enterprise. In the earlier stages of combination in this country the danger mark was frequently overshot; and competitors appeared, sometimes to the detriment of the organizations, but more often with disaster to themselves. By practice the great combinations have become skillful in exacting as much as possible without danger to themselves.

Prices what
the market
will bear.

Beyond the amount which is a fair profit there is a limit to the excess which can be taken year after year without bringing in competitors; but the total excess may be vast in amount. Sufficient evidence of this is furnished by the great corporations which are especially considered. (See pp. 104-154.) The United States Steel Corporation, in addition to paying interest on its bonds and ample dividends on all of the real valuation of the stock, has been able to put back into the business in a decade more than five hundred million dollars. This was accomplished in ten years by this corporation coöperating with the other corporations in the iron business, through holding the prices as high as the domestic trade would bear, but always sufficiently low so that a protective tariff prevented competing iron from coming into this

country from abroad. At the prices fixed, as large sales were made as possible in the United States and the excess was sold abroad at a lower rate. Precisely the same situation has obtained for the Standard Oil Company. The enormous profits of the past decade, far beyond reasonable amounts (see pp. 108-109), have been accomplished by an excess margin of somewhat more than two cents a gallon. This seems small; it may be so, — perhaps not more than twenty-five cents each for every man, woman, and child, in the United States, — but even on this basis the excess would be more than twenty million dollars per annum.

The same principles apply all along the line down to the local grocers. The advantages of prompt and convenient delivery enable the retail dealers of a town or city to cooperate in maintaining their prices above a normal profit by a definite margin. The limit to this margin is that it cannot be made so large as to make it advantageous for the consumer to purchase in a large city or in a neighboring town; although it may approach so close to this that some of the more careful and astute do make outside purchases.

The margin of profits which may be gained beyond a fair price is known as monopoly price. The law of monopoly price has been carefully analyzed by Ely. He says: "The greater the intensity of customary use, the higher the general average of economic well-being, and the more readily wealth is generally expended, the higher the monopoly charge which will yield the largest net returns."¹ If the price be raised too high, sales will diminish and therefore returns be lowered. It is the aim to hold the prices sufficiently high to give the largest possible return with the least expansion of business. In this connection it should be understood that the principle of monopoly price applies where monopoly does not fully exist; that it applies in greater or less degree as long as there is any cooperation of a group engaged in a given trade.

As illustrating the principle that if a local combination goes beyond the monopoly price, outside competitors will come in, is the case of ice at Madison, Wisconsin. Madison

The law of
monopoly
price.

¹ "Monopolies and Trusts," R. T. Ely, p. 103.

is situated between two lakes upon which ice forms each winter ; ice houses are located along the lakes ; and thus the ice dealers should be able to furnish this product at a low rate. For a moderate sized house until two or three years ago the price of ice furnished for family use was at the rate of \$1.50 for five hundred pounds, or \$18 per annum. The price was raised to a flat rate of \$2 a month in 1909, which price was so high that the Knickerbocker Ice Company entered the field in 1910. This company fixed the price at \$1 for five hundred pounds, and the local companies met the cut. But later, when the business of the new company was established, they and the local companies got together and raised the rate to \$1.50 per five hundred pounds.

Just as with public utilities, manufacture, and trade, competition has broken down as an adequate regulator of price, so in great measure competition has broken down in the price of labor and service. Thus the physicians of a given town usually charge exactly the same rate for the same kind of a service. Not to do so is regarded by the physicians as contrary to good medical ethics. The same practice obtains in other professions. And yet so far as the principle is concerned, an understanding by which a common price is charged for a like service is just as unlawful in proportion to the importance of the matter as any other combination in which there are price agreements.

Not only do professional men agree about prices, but also those who perform services of an entirely different character. The most fundamental purpose of the trades-union and all combinations of labor is to do combined bargaining, the chief point being the price. A union scale of prices is fixed by which all members of the union must abide. Not only do the regulations of the labor unions prescribe the price which is to be charged by the laborer, but the methods under which he is to work. In many instances in which the price is fixed regarding the day's wage, the laborer must not do more than a prescribed amount of work. The idea of individual bargaining by the laborers in the industries, and their competition among themselves as proper regulators of prices, has broken down

Entrance of
outside
competition.

Professional
men agree
in prices.

Labor
combina-
tions and
prices.

absolutely; and necessarily so, because the laborer as an individual was simply helpless against the great concentrations of capital. The only way that the laborers can be put on anything like an equal footing with capital in industry is to unite and so give themselves the strength of concentration, and thus do joint bargaining. From time to time the representatives of labor unions for coal, for railways, for the building industries, meet with the employers of labor, and agree with them upon a scale of prices which are to be charged for a given period of time. In this way competition in the price of labor between individuals is destroyed; not only so, but the fluctuation in price is wholly eliminated for a definite period.

The foregoing description of the situation cannot but convince any man who will look the facts in the face that the blind faith that prices are adequately controlled by competition in the United States is no longer justified, if indeed it ever was justified. Unrestrained competition does not as a matter of fact exist for many articles, except to a very limited degree at the present time. Everywhere there is restraint of trade by agreement or combination, either lawful or unlawful. So inevitable is this situation that we have seen how the law forbidding restraint of trade has accelerated concentration of industry from the loose agreement to the pool, from the pool to the trust, from the trust to the holding company, and from the holding company to the giant completely consolidated industry.

In making the foregoing statements, it is not meant to imply that competition has not been a most useful economic force in the past, nor that it will not continue to be a useful force. Competition has been powerful in stimulating men to effort; it, under some conditions for some industries, has been potent in improving quality; it has limited margins within monopoly prices, and has often been helpful in a wider sphere; it has been dominant in improving service. From the smallest firm to the greatest corporation there has been an increase rather than a decrease in the power of competition in improvement of service. Even if competition were

Blind faith
in competi-
tion not
justified.

Usefulness
of competi-
tion.

wholly destroyed as to quality and as to price, competition in service would still remain of the keenest.

While therefore agreeing that competition has been a great and highly useful economic force, it has been the purpose of the foregoing pages to show its severe limitations; to show that it is not adequate alone to control quality or price, and that where relied upon for these purposes, it has been a lamentable failure. For these, competition must be supplemented by regulation in order to give satisfactory results. In another place it is proposed that we shall retain the advantages of competition and also secure the advantages of regulation. (See pp. 249-252.)

Competition must be supplemented by regulation.

SECTION 9

THE WASTES OF COMPETITION

On previous pages the economic advantages of concentration have been given. The obverse of these are the wastes of competition. The economic gains through concentration are possible savings, which, if not taken advantage of, are at least losses in the sense that better things could be done even if they are not technically wastes. Therefore, in one sense all of the advantages of concentration should be here listed as gains not securable through competition. The various points discussed (pp. 8-20) will not here be repeated, but a brief statement will be made of some of the evils of competition which can manifestly be called wastes.

(1) *Expenses of Salesmen.* — One of the largest of the wastes is the unnecessary expenditures for salesmen under the competitive system. Where there is competition, the sales agents everywhere overlap one another in their work. In a small town or village there may be a half-dozen men selling the same kind of article within a week; whereas, if coöperation existed, many different brands could be exhibited by a single salesman and the expense greatly reduced.

A number of illustrations of such losses have already been given. (See p. 14.) Many more might be included; but

one of the best is the enormous loading in the life insurance business, which has resulted from the competitive system due to the expense of salesmen selling life insurance, usually men receiving high pay and high commissions. Indeed, for many companies a large percentage of the conduct of the business and a considerable percentage of the income has gone to compensate salesmen of insurance.

(2) *The Expense of Advertising.*—The money spent for advertising is enormous. This varies from the frantic efforts to push patent medicines, through many specialties, such as automobiles, to staple articles, such as soap, clothing, and foodstuffs. It is a well-known fact that the great daily newspapers would be losing enterprises, as conducted, if it were not for the advertising; indeed their major profits come from this class of business. The same is true of the weekly and monthly magazines, many of which give more space to advertising than to reading matter. If one looks through the magazines and makes an estimate of the amount of money which is spent in the advertising of such an article as soap for a single month, he will find that this reaches tens of thousands of dollars. The enormous cost of advertising will scarcely be appreciated without knowing the cost per page and the number of pages carried per month for the different magazines. The cost of advertising per page for each issue of some of the standard magazines is as follows:

Ladies' Home Journal, \$6000; *Saturday Evening Post*, \$4000; and such magazines as the *Century*, *American*, *Harper's*, *McClure's*, *Munsey's*, *Cosmopolitan*, *Everybody's*, from \$250 to \$600, depending upon the circulation.¹ Exceptional positions, such as the back covers and the pages next to the covers have special rates greater than the above. The average number of pages of advertising for the *Ladies' Home Journal* is about 35, and the *Saturday Evening Post* is about 25. This makes the advertising cost for a single issue for these publications \$210,000 and \$100,000 respectively.

(3) *Competition and Conservation.*—The heaviest of the wastes of competition with reference to the future of the race

¹ Mahin Advertising Company Data Book, 1912.

are those due to the unnecessary destruction of natural resources in order to put an article on the market at a competitive price.

Of the wastes of natural resources through competition probably those of fuels and gas are the worst. Holmes says, regarding coal: —

“Those who are less familiar with the mining industry than you are with the metallurgy may not be aware of the fact that for every ton of coal brought to the surface in the bituminous or soft coal mines of this country, not less than one half a ton is left under the ground, and it will not be possible to bring it to the surface in the future at any reasonable cost, if at all. But more shocking still is the fact that in our anthracite coal fields, which are so limited in extent as to be confined to a territory comprising less than four hundred square miles, even with all modern improvements, not more than 50 per cent of the anthracite coal of the areas mined is being brought to the surface. The remainder of it, now aggregating 80,000,000 tons a year, is being left underground in such condition as to make its future recovery difficult, if not impossible.

“In the early days of anthracite mining there was brought to the surface an average of between 30 and 40 per cent of the coal, so that from 60 to 70 per cent remained under the ground, which was sufficient to give strength to the roof; and to-day mining engineers are bringing to the surface a part of the coal which was left in the mines 30 or 40 years ago. But as the percentage of coal mined has increased, from time to time, the possibility of recovering what is left behind diminishes. It has been estimated that since the beginning of coal mining in the United States, more than 2,000,000,000 tons of anthracite coal and 3,000,000,000 tons of bituminous coal have been left underground in such condition as to make its future recovery doubtful or impossible.

“I know of no other American industry which to-day is in so deplorable an economic condition as is the bituminous

¹ *Journal of Industrial and Engineering Chemistry*, “Carbon Wastes,” J. A. Holmes, pp. 160–162.

One third
of bitu-
minous coal
lost.

Half of the
anthracite
left in
ground.

coal industry. The operators, unable under existing laws to combine and fix prices of coal or any trade agreements, are adopting what appears to be the only alternative — ruinous competition, which encourages or enforces wasteful and dangerous mining. It seems essential that federal or joint state legislation be enacted authorizing such reorganization of this great industry as will permit reasonable returns on the money invested and at the same time properly safeguard the public interests. You realize that it is often less expensive per ton for the operator to bring the first half of his coal to the surface than it is for him to bring out the remaining half, because this second half will support the roof while the first half is being removed; but while he removes the second half he must often temporarily support the roof with timbers; this entails additional expense, to meet which there is generally neither an accumulated surplus from which to draw, nor a temporary profit from which to meet this extra expense; hence the coal is abandoned. It is only fair to the coal operator that he is not in the mining business for his health, but to make a living by earning a reasonable return on his investment. Therefore, what we may consider a waste may be a necessary waste under existing economic conditions; a waste, however, that is preventable and should be prevented by improvements in our economic conditions, and necessary legislative requirements.”

Competition produces waste.

The above admirable statement by Holmes regarding the inevitable waste of coal under the competitive system may be made more concrete by illustrations.

Mr. Walter S. Bogle, speaking for the coal operators of the state of Indiana, says that the proposed formation of a selling agency by a number of small operators was declared by the federal officers to be in restraint of trade, and notice was given that if such selling agency were established, those contemplating its formation would be subject to criminal and civil prosecution.¹ This is the situation even if the operators contemplating a selling agency are together able to put no more coal upon the market than a single large

¹ Hearings, Interstate Commerce Committee, XXVI, pp. 2320-2327.

concern. The Indiana coals are of a kind that deteriorate rapidly when taken out of the mine. Several varieties and sizes of coal are produced; to obtain one size other sizes must be made. If an order comes to a mine for a certain size, corresponding orders may not come for the other sizes; but such orders may come to an adjacent mine. If a group of mines may coöperate so that the orders will equalize themselves among the different varieties and sizes of coal, it is evident the waste will be greatly reduced.

Mr. G. W. Traer,¹ speaking for the Illinois Coal Operators' Association, says in that state there are about three hundred independent coal producing companies; that the demand for the Illinois coal is about 50,000,000 tons a year, but that the capacity of the mines is about 75,000,000 tons. It is necessary to have a greater mining capacity than the average demand, since the demand in the winter months greatly exceeds that of the summer months.

The Illinois coal, like the Indiana coal, deteriorates if unused for several months. Thus if the mines be developed sufficiently to meet the demands for the year, they must lie idle for a portion of the time. As a matter of fact the average running period of the mines per annum is about one hundred seventy days. If the mine operators do not agree among themselves regarding limitation of output during the summer months, it is inevitable that there will be overproduction, deterioration, and great waste; yet it is certain that under existing laws agreements to limit output are illegal.

Mr. J. F. Callbreath² states that there are 5000 operators of bituminous coal in the United States which have the ability without opening new mines to produce 200,000,000 tons of coal per annum more than the present markets demand. Under existing laws no group of these operators may coöperate. He states that three fourths of the members of the American Mining Congress are consumers of coal, not producers, and they urge that there be coöperation among the coal mines in order to secure regularity of out-

¹ Hearings, Interstate Commerce Committee, XXVI, pp. 2353-2359.

² *Ibid.*, XXVI, pp. 2372-2380.

put and uniform prices. According to him an investigation of the bituminous coal mining industry for 1910 shows the following situation: The average cost of production for 1910 was "\$1.07 per ton, 95 cents for mine labor and supplies and 12 cents for general expenses. It shows that there was invested in the industry \$585,000,000. The average price obtained at the mine during 1910 was \$1.11 — 4 cents per ton to cover selling costs, depreciation of machinery, exhaustion of resources, and interest upon capital invested.

"The sworn testimony of the Pittsburg Coal Co., before the Interstate Commerce Committee in November, 1911, shows that in the previous 17 months the company mined 3,522,500 tons of coal at a cost of \$1.1148, and the average selling price for that period was \$1.0930. It showed further that the product of 20 of its mines, out of a total of 52, produced 5,350,594 tons at a cost of \$1.0788, and when the money actually spent in selling this coal is added to the given cost and the interest on bonds of the company it appears that the cost of this coal was actually in excess of \$1.15 per ton run of mine."¹

Under such conditions it is certain that the mining will not be carried on economically; that only the coal will be taken out which can be mined cheaply, and the remainder left in the mine to be crushed by the gradually sinking roof. "To avert these conditions there are but two possible remedies. One, that the coal shall be sold at a greater average price; the other, a greater economy in operation by which the same price will yield a profit. Neither of these remedies is possible under the system of cutthroat competition which now exists. It is only by general coöperation that any relief can be obtained except by a process which would eliminate the greater number of those now in the business."²

Nor will it be possible under these conditions to introduce in the mines those devices which are necessary for the preservation of life; and plainly it will be impossible to

¹ Hearings, Interstate Commerce Committee, XXVI, pp. 2372-2373.

² *Ibid.*, p. 2376.

give the miners wages adequate to introduce good social conditions. In view of the above situation the operator asks that conditions be created covering the following points:—

“First. Proper protection to the lives and health of the miners.

“Second. Prevention of waste and proper conservation of fuel resources.

“Third. A fair profit to the operator.

“Fourth. A fair and uniform price to the consumer.”¹

No one can gainsay the desirability of creating the above conditions, but it is absolutely certain that they can never be established except through coöperation, and coöperation of a kind which is illegal under existing laws.

Regarding gas, Professor Holmes says: “Our waste of natural gas is a crime, and thoroughly discreditable to the nation. It is far worse than the waste of coal. The statistics for 1910, according to the Geological Survey, showed that some 480,000,000,000 cubic feet of gas were turned into the atmosphere and forever lost. In the above as in other cases, the individual operator finds it easier to save a part, than all, of these resources, yes, cheaper for him to waste a large part of these resources than to save all. In the case of natural gas he says: ‘I want to get oil, and if I can get the oil cheaper by letting the gas escape, that is the operation I will pursue.’ And the state and the nation stand by and watch the operation.

“There are many other examples of extensive and serious carbon waste in this country. Thus, in the coking industry the beehive coke ovens have turned into the atmosphere more than 100,000,000,000 cubic feet of valuable gas, which, if properly treated, will yield not only gas but other important carbon by-products.”

Statements have been made at some length regarding fuel and gas because of their paramount importance; but for some of the metals a similar situation exists and must continue to exist under the severely competitive system.

¹ Hearings, Interstate Commerce Committee, XXVI, p. 2379.

Waste of
natural gas

Waste in
making
coke.

This is illustrated by lead and zinc. Putting together all the losses in mining, concentration, and smelting, they probably amount on an average to at least 40 per cent of the metal of the ore, and in some instances the losses run as high as 60 or 70 per cent. These losses are in large measure due to the extreme competitive system under which excessive royalties are charged to the operators.¹

Waste of lead and zinc.

Untermeyer² calls attention to this situation for copper. Methods of competition involve overproduction for this country and exportation of the excess, when the copper ore in sight is probably not sufficient to last more than fifty years. If the copper producers were allowed to coöperate in the regulation of production, rational action could be secured both as to quantity of copper which is to be mined and as to methods of mining.

Waste of copper.

Small production and competition in all mining enterprises lead to great and irreparable wastes, the effects of which must be borne by succeeding generations.

Another of the numerous wastes is that in metallurgy. For instance, sulphur is being burned upon a great scale, and the products are being passed into the atmosphere to the injury or destruction of surrounding vegetation. With reference to agriculture this loss of sulphur is likely to become irreparable, since sulphur is one of the limiting and crucial elements among plant foods.³

Waste of sulphur.

A situation obtains for timber similar to that which applies to the metals and coal. With unrestricted competition the timber is cut and only the choicest parts of the logs are marketed, the remainder being left in the woods. If co-operation were possible, it would be practicable to have conservative timber cutting, the additional expense of saving the wasted material slightly adding to the price. Mr. D. E. Skinner⁴ illustrates the situation regarding timber in

Waste in timber.

¹ "Conservation of Natural Resources in the United States," C. R. Van Hise, pp. 80-85.

² Hearings, Senate Interstate Commerce Committee, Part V, p. 184.

³ "Sulphur Requirements of farm crops in relation to the Soil and Air Supply," Research Bulletin 14, Agricultural Experiment Station, University of Wisconsin.

⁴ Hearings, Interstate Commerce Committee, XXII, pp. 1909-1911.

the western part of the United States. Since under the Sherman act coöperation is not possible the weaker operators are bound to make sales, and they will at such prices as they can get. For the lower parts of the trees the average sale price is \$15 per thousand feet board measure, and for the upper part \$7 per thousand feet. In California it costs in round numbers \$5 a thousand feet for logging and \$5 for milling. Under these circumstances it naturally follows that the tops of the trees and the small down timber which will not produce lumber selling at about \$10 a thousand, are left to rot in the forest; and this leaves on the ground from twenty to thirty per cent of the material which should have been taken off. The only possible remedy for the above situation is to allow coöperation so that a price may be secured which will permit the utilization of the upper parts of the trees. For our wild orgy of competition in the lumber industry succeeding generations will pay heavily.

Conditions
in older
countries.

In making the above statements, it is realized that in a new country, with abundant resources and a relatively sparse population, we cannot expect the same severe economies that are practiced in the older, more densely settled countries. It would be impossible to introduce the extreme economies and labor costs of the intensive agriculture of China into the United States under present conditions. The smaller twigs and limbs of timber cut in lumbering cannot be saved in this country as yet. Where labor is cheap, savings are possible which cannot be practiced in the United States. While this is the situation, upon the other hand, reckless extravagance in the use of natural resources is not warranted. Under present conditions, we can and should introduce all practicable economies in the use of our natural resources along every line.

Respon-
sibility to
posterity.

Everywhere the necessity to meet severe competition, combined with the desire to produce large profits, results in extravagant and wasteful use of resources limited in quantity. It is our duty to our descendants to conserve our fundamental resources, to use them economically, to prevent their unnecessary waste or destruction; and if by so doing

a ton of anthracite or iron costs us a few cents more, we should bear this additional expense. Under unrestricted competition there is no hope for economical use of our resources, no hope for conservation.

The Consumer pays for the Wastes of Competition. — Ultimately all the losses and wastes of competition come back to the consumer and are added to the price which he must pay. If, as a result of overbuilding, concerns fail and factories are dismantled, the cost finally must be borne by the community. The enormous expense of traveling salesmen and advertising is paid by the consumers of the articles sold. The men who carry life insurance support the numerous high-priced agents. Succeeding generations will suffer for our reckless exploitations of natural resources.

Says Nettleton: "The waste of wealth due to unrestrained competition would, if saved, go far to enrich the community every year. And this waste finally falls for the most part on the general body of consumers, — the much enduring public."¹

Wastes of Competition drive to Combination. — Because of the situation described, not only has restraint of trade existed in a thousand matters in contravention to the Sherman act and the various state antitrust acts; but it will continue to exist either lawfully or unlawfully, because of the frightful wastes of the competitive system. If where fierce and unrestricted competition exists, this goes on until the weaker competitors are driven from the business and the others are on the verge of bankruptcy, in order to prevent the destruction of the group, a combination or coöperation of the remaining companies will be formed either secretly or openly. In consequence of this principle, because of the law against restraint of trade in this country, innumerable secret combinations have been formed.

In Germany and England, where combination is free as well as competition, the organizations of fair size have coöperated through one of the looser forms of organization, and have thus avoided the losses of fierce competition; but in America the loose agreements not being enforcible in the courts, in order

Combina-
tion per-
mitted
abroad.

¹ "Trusts or Competition," A. B. Nettleton.

to save themselves from destruction, the competing units have been obliged to combine formally in a manner which it was supposed the courts would protect. We have seen that many of the whisky distilleries of the country had gone into bankruptcy before the remainder combined. Similarly it was the still fiercer competition between the Federal Steel and the Carnegie Steel and other steel companies that led to the formation of the United States Steel Corporation.

Railroads
violate laws
against
restraint
of trade.

When the stage of competition resulting in enormous losses was reached between the great railroads, agreements and pools were first formed; and finally a way was found to exempt the railroads and other public utilities from the laws forbidding combination in restraint of trade by control through commissions. To this plan the public gives general assent and no prosecutions follow, although the agreements regarding prices are as clearly in violation of the law as were those of the packers or those of the Standard Oil Trust.

Combina-
tions on
the ocean.

A like situation exists between the Atlantic liners. With modern conditions we have seen the ships grow larger and larger. We have now the *Lusitania* and the *Mauretania* of the Cunard line and the *Olympic* of the White Star line. Occasionally there has been severe competition in price between these lines and the other great lines, such as the North German Lloyd, Hamburg-American, etc.; but at the present time for definite seasons of the year there are substantially like prices for similar accommodations, the prices being raised and lowered for the same accommodations at different seasons of the year, being perhaps twice as high in the summer as in the winter.

The illustrations given show that the inevitable consequence of unrestricted competition is bigness and finally monopoly. Even Brandeis,¹ who strongly advocates competition, says: "Unrestrained competition will lead necessarily to monopoly." Along the same line, Untermeyer² says: "The logical outcome of unrestrained competition is legalized monopoly." Laughlin puts the case that with

¹ Hearings, Senate Interstate Commerce Committee, Part XVI, p. 1162.

² *Ibid.*, Part V, p. 183.

“free competition you must inevitably expect to have bigness and also monopoly.”¹

Ruin or Combination. — In the past, the disastrous competition which has led to ruin has been largely confined to the small concerns. When there is severe competition of many small manufacturers or sellers, a number of them with relatively small capital fail. The fact that from 10 to 20 per cent of them go to the wall may not so seriously affect business as to be generally noticed; but its total effect is great, and, so far as the man whose business is destroyed is concerned, it is an individual disaster. As the many drop out, the competitors become fewer and the competition becomes ever keener. Finally a situation arises where this can no longer be endured.

Numerous illustrative cases could be given in which fierce and unrestrained competition has driven business men to the verge of distraction or to complete ruin. I select one or two recently brought before the United States Interstate Commerce Committee.

Vinson² testified that in West Virginia the small coal producers cannot compete with the large concern because they cannot coöperate through a selling agency. He says that if the small concerns are not allowed to coöperate so as to have the advantage of the large concentration, the only alternative is bankruptcy.³ Untermeyer reports that a dozen of the paper manufacturers had failed because they were unable to compete with the big fellows; and that they had made a temporary trade agreement in order to save themselves from destruction; but that in consequence they were indicted and fined for violation of the antitrust law. Says Untermeyer:⁴ “Requiring the enforcement of unrestricted competition calls upon people either to make criminals of themselves or to ruin themselves in obeying the law.” Says Walker:⁵ “Competition is the life of trade;

¹ Hearings, Senate Interstate Commerce Committee, Part XIV, p. 996.

² *Ibid.*, Part III, p. 30.

³ *Ibid.*, Part V, p. 194.

⁴ *Ibid.*, Part V, p. 183.

⁵ “Unregulated Competition Self-destructive,” Aldace F. Walker, *Forum*, December, 1881.

competition is the death of trade: one phrase is as true as the other." And again: "Unrestrained competition as an economic principle is too destructive to be permitted to exist."

The fierceness of modern competition is the inevitable result of the development of transportation and communication. Until these were in a highly advanced condition it was not possible for an organization to reach a great territory with its products. With highly efficient transportation and communication the strong organizations, even if far apart, meet one another in the wide markets; and the destructive struggle is inevitable unless they coöperate.

A situation similar to that which existed with the railroads before coöperation in charges was actually agreed upon is now reached for the great manufacturing industries. They have found a way by consolidation to prevent the evil effects of unrestricted competition. It is now proposed through the courts to break up these combinations and restore competition. If this be done, it is safe to say that even greater disasters will befall the country for the great industries than those which the country suffered when the same situation existed with the railroads.

With the alternative before the business men of coöperation or failure, we may be sure that they will coöperate. Since the law is violated by practically every group of men engaged in trade from one end of the country to the other, they do not feel that in combining they are doing a moral wrong. The selection of the individual or corporation for prosecution depends upon the arbitrary choice of the Attorney-General, perhaps somewhat influenced by the odium which attaches to some of the violators of the law. They all take their chance, hoping that the blow will fall elsewhere. With general violation and sporadic enforcement of an impracticable law, we cannot hope that our people will gain respect for it.

Coöpera-
tion in
industry
imperative.

Alternative,
lawlessness
or failure.

CHAPTER II

SOME IMPORTANT ILLUSTRATIONS OF CONCENTRATION

Now that a general statement has been made of the economic advantages of concentration, its extent, the wastes of competition, its consequent break-down, etc., it seems advisable as the next step to make the situation more concrete by giving an outline statement concerning some of the greatest combinations, including the benefits and evils which have appeared in connection with them.

With two exceptions, the illustrative industries selected for description are those upon which reports have been made by the United States Commissioner of Corporations. The earliest of these reports, viz., that upon beef, was made when James R. Garfield was Commissioner. The other reports were issued during the time that Herbert Knox Smith has held that office. The corporations reported upon by the Commissioner are those of the first magnitude, and the facts concerning them are presented with a fullness not available for the corporations not investigated by this bureau.¹

SECTION 1

THE MICHIGAN SALT COMPANY²

Beginning with 1860, there was a rapid development of salt production in Michigan. About 1865 came overproduction and unrestricted competition; the weaker companies were driven to the wall. It was recognized that the solution of the difficulty was combination. By 1866 the manufac-

¹ The great combinations as they existed twelve years ago are described in the Report of the Industrial Commission, Vols. I and XIII.

² Summarized from an article by J. W. Jenks, contained in "Trusts, Pools, and Corporations," Ripley, pp. 1-21.

urers united their interests for selling the product. In 1868 there was formed an association called the Saginaw and Bay Salt Company, which handled four fifths of the salt shipped from the Saginaw Valley. This association continued until 1871, when it was broken up as a result of dissensions; but declining prices and lack of prosperity led to the formation of the Michigan Salt Association in 1876. The agreement forming this association was for five years, but it was renewed in 1881 under the name of the Salt Association of Michigan, and again in 1886 under the name of the Michigan Salt Association.

Changing
name.

The associations were essentially pools; they had a very small capital, \$200,000, which was distributed among manufacturers of salt in proportion to their capacity. After providing for the expense of the business, there was an annual dividend of only 7 per cent upon the stock. After paying this dividend and the expenses, the remainder of the income was distributed to the manufacturers in proportion to their output. Under the articles of agreement a contract was made every year with each manufacturer to make salt wholly upon the association's account, of the best quality, to be delivered to the association according to the conditions of the contract. If a manufacturer violated his agreement, he paid ten cents upon every barrel of the salt so sold. There was no restriction imposed upon the output of the various concerns. This lack of limitation was due to the fact that the salt manufactories obtained their heat from the by-products in lumber manufacture.

Conditions
of the pool.

The economic advantages accruing to the manufacturers through the association were reductions in the amount of selling costs due to the maintenance of a single selling agency at each of the commercial centers, and reasonable prices, as well as the avoidance of cross freights. After the association was formed in 1866 the prices were somewhat increased; they reached a maximum in 1868, when the price of salt was \$3.25 a barrel at Chicago. From this time on prices continued steadily to fall until in 1881, when the Chicago prices were \$1.05 per barrel. In 1871 the salt com-

Economic
advantages.

bination was extended to include not only the Michigan salt producers, but those of Ohio and New York. Prices were fixed by the combination at various points. The outputs of the fields were apportioned in 1871, and reapportioned in 1881. The pool broke up in 1882, after which there was a further decline in the price of salt. At Chicago in this year it became as low as 80 cents.

Jenks places to the credit of this association the following points:—

As a result of the action of the association a system of state inspection was established under which every block of salt placed upon the market was rigidly examined. In consequence, each manufacturer was obliged to produce an article which came up to the standard set by the association and by the state. The prices were reasonable and steadily declined during the life of the association. In consequence of the combination, less capital was required to conduct the business; better rates of transportation were secured; there was no loss by cross freights; the cost of marketing was reduced; there was a reduction in the losses through bad debts.

Credits
to pool.

It would seem that the history of the Michigan Salt Association was a creditable one, in that dealing with an essential article, the output was increased, the quality of the product improved, the cost of manufacture reduced, so that there was placed upon the market a superior article at a price much less than when the association was organized.

The association very well illustrates the instability of the pool, since not having the sanction of law and the support of the court (see p. 68) any member or group might withdraw at any time, or violate any of the articles of agreement and refuse to pay the penalty; consequently the history of the association, as of other pools, was one of ups and downs and finally inevitable dissolution.

Pools
unstable.

SECTION 2

THE STANDARD OIL COMPANY¹

The report of the Bureau of Corporations upon the Standard Oil Company was published in 1907, and includes an account of the business to and including the year 1906. The facts here stated are to be considered as of that date.

The Standard Oil Company, with its various affiliated concerns, handled 84.2 per cent of the crude oil which goes to the refineries in the United States. One refinery, that at Bayonne, New Jersey, consumed more crude oil than all of the independent plants of the country.

The Rise of the Company. — The rule of the Standard Oil Company began with the union of several large refining companies into a partnership known as Rockefeller, Andrews, & Flagler, in 1867. Three years later this partnership was succeeded by the Standard Oil Company of Ohio, with a capitalization of \$1,000,000; and with its organization began the campaign for the control of the refining business of the country. When the company was formed, it did not control more than 10 per cent. Within ten years the Standard Oil and associated companies controlled about 90 per cent. Monopoly was accomplished in a decade.

Not only did this company control the refining business, but it controlled every important pipe line in the oil fields. The only serious competitor was the Tide Water Pipe Line Company, which, however, in a few years passed to the Standard. Thus the Standard for many years had no rival in pipe line transmission of oil to the Atlantic coast; and at no time was there more than one independent pipe line to the seaboard and this much smaller than those of the Standard Oil.

In 1882 the Standard Oil interests formed the Standard Oil Trust, under which the entire stock holdings of fourteen companies and a majority interest in twentysix additional concerns were held by trustees. The capitalization of the trust

¹ Report of the Commissioner of Corporations on the Petroleum Industry: Part I, "Position of the Standard Oil Company in the Petroleum Industry"; Part II, "Prices and Profits." Washington Government Printing Office, 1907.

Monopoly
swiftly
accom-
plished.

at that time was \$70,000,000, and the appraised value of its property in excess of \$55,000,000. Of the \$70,000,000 trust certificates nine of the trustees owned more than \$46,000,000. The appraised value of the trust by 1892 had accumulated to \$126,600,000. As a result of a decision against the Standard Oil Company of Ohio in 1882 (see p. 174) and contempt proceedings, the Standard Oil Company of New Jersey was organized, but not until 1897.

Capitalization of the trust.

Thus, the Standard Oil Company of New Jersey, a holding concern, was a direct successor to the trust, the only difference being that the holding company owned all of the stock of the subsidiary companies, instead of being a trustee for this stock; each alike controlled the business of the subsidiary companies, and received and distributed all dividends. The officers of the constituent companies in one case had their orders from the trustees, in the other from the officers of the corporation composed of substantially the same men.

Trust and holding company the same in essence.

The authorized capital of the Standard Oil Company of New Jersey was \$100,000,000, of which \$98,338,300 was issued. The Standard Oil Company included in America eleven companies mainly engaged in refining, five lubricating oil companies, three crude oil companies, fourteen pipe line companies, a tank line company, six marketing companies, and sixteen natural gas companies. Its business abroad was done through sixteen companies. In addition to these companies seven pipe lines and refining companies were closely affiliated with or controlled by the Standard Oil Company.

Scope of operations.

The Monopolistic Position of the Company.—While the statistics of production show that the Standard Oil Company was dominant in all departments of the business, it did not hold this position through a direct monopoly of the ownership of the wells; since in 1905, of approximately 135,000,000 barrels of crude oil, not over one sixth came from the wells owned by the Standard, and in no one district did its own wells produce more than 50 per cent of the output. But while the Standard did not control the wells, it controlled the pipe lines, which are the only means by which oil may be cheaply transported. Thus the Standard was almost the

Standard purchased oil.

sole purchaser for the oil owned by others. The control of the pipe lines controlled the situation because the refinery at the distant town was not able to pay the railway rates upon crude oil, which are very high as compared with the pipe line transportation.

The Appalachian, Lima-Indiana, Illinois, and Mid-Continent are the four great fields which produce the most valuable oil for illuminating purposes; and in these four fields there was only one pipe line other than the Standard's, that of the Pure Oil Company, a line less than 550 miles in length. The percentage of business of these four fields handled by the Standard varied from 84 to 96 per cent.

In the refining industry the plants of the Standard were favorably located and of high efficiency. In 1904 it produced 86.5 per cent of the refined illuminating oil, leaving 13.5 per cent to the independent refineries. Of the export business, Standard Oil handled, in 1904, 13,240,113 barrels, or 87 per cent, of the total for the country.

In the marketing business Standard Oil was in an especially strong position because of the wide and wise distribution of its plants, because of its pipe lines, tank cars, and many local storage plants. This system of distribution was so complete that, for the most part, it eliminated the jobber, and dealt directly with the retailer or with the individual consumer. For the United States the known Standard concerns marketed 88.7 per cent of the illuminating oil.

The causes which led to the dominating position of the Standard Oil Company were efficiency of organization, magnitude, integration, utilization of by-products, and unified marketing; in short, all of the advantages which are described (pp. 8-20) as economic causes for concentration. But in securing the position which Standard Oil occupied there is no doubt that very important, if not determining, factors in reaching it were the following special causes:—

Railroad discriminations in favor of Standard Oil were continuous from the formation of the Standard Oil Company of Ohio until the railroads under the Interstate Commerce

Monopoly
of pipe
lines.

Monopoly
in refining.

Efficiency
in market-
ing.

Commission were compelled to discontinue these practices. The rebates secured by Standard Oil from western Pennsylvania to the seacoast were frequently a considerable part of the cost of transportation. At one time when the open rate from Pennsylvania to the coast was \$1.44½, 80 cents was the rate for the Standard Oil. Another form of advantage was to give lower rates on oil in tank cars than on oil in barrels. At other times the published rates were reduced for short periods after previous notice to the Standard, so that large shipments could be made by that company, after which the rates were again advanced.

Railroad
discrimina-
tions.

Another advantage which the Standard Oil had was through its pipe lines. These gave it almost complete monopoly of the cheapest form of transportation. Even after the pipe lines were declared to be common carriers, the Standard Oil Company still refused to transport the oil of its competitors; or if it transported the same, it was with excessive rates, under such conditions as to make competition extremely difficult. Where there was a competing line the Standard would attack it by purchasing the crude oil of the wells in the vicinity of the independent line at excessive prices, sometimes from 15 to 20 cents a barrel more than the current price. In this way, even at a loss, the Standard prevented the competing lines from getting business, recouping the loss by profits from other parts of its system. If the pipe lines had in fact acted as common carriers, and transported oil at reasonable rates at points as asked, a very important element in the growth of the monopolistic power of the Standard would have been lacking.

Unfair use
of pipe
lines.

The Standard Oil Company maintained a monopoly from the establishment of the Standard Oil Trust in 1882 until the time it was dissolved by the order of the Supreme Court in 1911. Because of this the organization was able to charge excessive prices which gave enormous profits. According to the Commissioner of Corporations, the following points appear regarding prices:—

Monopoly
prices.

1. There was a marked increase in the margin between the price of crude oil and its leading finished products, after the

formation of the Standard Oil Trust, and even during the past ten years.

2. Standard Oil has sold illuminating and free petroleum products cheaper abroad than at home, the difference being very great in 1902.

3. Standard Oil discriminated greatly in fixing prices in different sections and different towns, charging exorbitant rates when there was no competition, very low rates, and even prices so low as to give a loss, in places where there was competition.

4. The profits of the Standard Oil Company especially in its domestic business were excessive.

5. The real source of the Standard's power was not in superior service but in long-continued use of unfair methods of competition.

6. The Standard by using its influence as a larger shipper secured excessive prices for lubricating oil from the railroads of the country.¹

Margins and Profits.—The margin between crude oil and illuminating oil increased markedly from 1897–98 to 1903–04. In 1898 it was 5.3 cents; in 1903, 7.1, an increase of 1.8. Similar increases of margins applied to gasoline and lubricating oil. Even if the profits due to increase in margins be placed at only 1.5 cents per gallon, on 1,400,000,000 gallons produced in 1904, the increased profit would mean \$21,000,000. Similar calculations give \$25,000,000 for 1903. Corresponding with this calculation, the profits of the company in 1896–97 were in the neighborhood of \$34,000,000; whereas, in 1903 they were \$81,000,000, an increase of \$47,000,000. In 1893–94, when the margins were the lowest, the profits of Standard Oil on the capitalization of the company were between 11 and 12 per cent; in 1896 they had reached 23 per cent; and since that time to dissolution there were enormous profits, due to the increase of margins. Prices in the United States for two years, taking into account both grade and freight, have been from one to nearly three cents higher than those which obtain in London and Hamburg.

¹ "Petroleum Industry," Part 2, 1907, pp. 1–2.

Price Discriminations.—Sectional price discrimination was shown by the very great variation in price among the different cities, being relatively low where competition was keen, and very high where monopoly was complete or nearly so. In 1904 at Los Angeles the price was 6.7 as compared with 12.3 at San Francisco. Prices have been as high as 16.61 at Butte at the same time they were as low as 7 in other cities. Illustrating the situation very well, in New York City and vicinity, the very seat of the Standard's greatest refineries, the price was 10.5, while at Worcester it was 7.5, and at Cincinnati and Cleveland 7 or less.

Excessive Profits.—The total dividends paid by the Standard Oil Company from 1882 to 1906 were over \$550,000,000, on an average over \$22,000,000 a year. This, however, does not represent the total net earnings, since there were large accumulations not declared as dividends. From 1882 to 1896 the profits on the capital stock and trust certificates averaged about 19 per cent. In 1903 they had reached 83 per cent and the average from 1903 to 1905 was about 68 per cent, annually. The total profits from 1897 to 1906 are believed to be somewhere from \$790,000,000 to \$850,000,000; and this upon properties the value of which originally aggregated not more than \$75,000,000. These figures show that after monopoly was obtained and improvements made in transportation and manufacturing, it was possible because of this situation to secure these enormous profits.

It is notable that excessive profits came about, not by taking any very large amount from a single gallon of oil, not more than two or three cents, and yet these two or three cents multiplied by the enormous number of gallons used by the people of the United States led to the vast profits above given. The Standard Oil industry very well illustrates the principle that if a commodity is widely needed, even if one family uses a relatively small amount, and the average annual tribute levied upon that family is small, if there be a moderate excess beyond that of a fair price, the total illegitimate profits of the organization may be fabulous; not only so, but the accumulation of these enormous profits in the hands of

a few men may enable them to invest in other lines of business which have monopolistic elements, and they thus gain a commanding influence in the industry of the country. It is well known that the excessive profits which have gone to the owners of the Standard Oil Company have enabled them to enter many other great lines of business, so that they, with their railroads, industrial organizations, trust companies, and banks, are one of the two great dominating centers which in large measure control the money of the United States. The disintegration of the Standard Oil Company by the order of the courts is discussed on pp. 181-183.

Summary of Evils. — In summary the Standard Oil Company illustrates very clearly a number of evils which have risen in connection with great combinations.

This company has engaged in the following practices: —

1. From the railroads it has secured rebates and drawbacks; has had better service than competing corporations; has had rates manipulated for its own purposes; has had lower rates on oil in tanks than in barrels; has secured information as to business of competing companies.

2. It has owned pipe lines; by its position of ownership it has had great advantages through refusing in good faith to execute the duties of common carriers to competing organizations.

3. Because of its monopoly it has been able to increase its margins beyond reasonable amounts, and thus has secured excessive profits.

4. It has disposed of its products cheaper abroad than at home.

5. It has had greatly varying prices in different sections of the country, the prices being made very low whenever competition appeared, the purpose being to destroy competitors, and it has succeeded in many instances.

6. It has pursued methods of espionage upon competing concerns in order more advantageously to compete with and destroy them.

7. It has used secret companies to kill competitors.

SECTION 3

THE UNITED STATES STEEL CORPORATION¹

Early Consolidations. — Before the organization of the United States Steel Corporation, consolidation of the iron and steel industry had made much progress. Prior to 1898 the steel business was distributed among a large number of relatively small companies, although even at that time a number of steel companies had obtained considerable prominence, among which were the Illinois Steel Company and the Carnegie Steel Company. The organizations producing the more finely finished materials were almost altogether separate from those which made pig iron, steel billets, and the relatively heavy and simple finished products, such as rails, structural material, and plates. In 1898 there began a series of mergers which resulted in the development of a number of very large companies, each one having as elements a number of organizations before independent. The earliest of these was the Federal Steel Company incorporated in 1898 with a capital of \$100,000,000. This included the former Illinois Steel Company, the Minnesota Iron Company, the Lorain Steel Company, and the boats and railways owned by these companies. By this merger the steel business was for the first time integrated from the ore to the coarser of the finished products.

The National Steel Company was formed in 1879 with a capital of \$59,000,000. The plants acquired were mainly in Ohio.

In 1900 the Carnegie interests were organized into the Carnegie Company of New Jersey, with a capitalization of \$320,000,000. This new organization united the Carnegie Steel Company, the H. C. Frick Coke Company, and the Oliver Iron Mining Company. The company also had

¹ Report of the Commissioner of Corporations on the Steel Industry: Part I, Organization, Investments, Profits, and Position of the United States Steel Corporation; Part II, Cost of Production. Washington Government Printing Office, 1911. Hearings before Committee on Investigation of United States Steel Corporation, Parts 1 to 63 inclusive, p. 5594.

control of a railway from Lake Erie to Pittsburg and owned boats on the lakes. Thus there was even greater integration than in the case of the Federal Steel Company, in that a great coke company was included.

The three great companies mentioned were engaged chiefly in the manufacture of crude material or the coarse finished products such as pig iron, steel billets, rails, beams, plates, and bars.

During the same period the companies producing the more refined products were also largely consolidated into the American Tin Plate Company in 1898, the American Steel and Wire Company in 1898, the National Tube Company in 1899, the American Steel Hoop Company in 1899, and in 1900 the American Sheet Steel Company, the American Bridge Company, and the Shelby Steel Tube Company. Each of these organizations, with the exception of the Shelby Company, which was smaller, had a capitalization varying from \$33,000,000 to \$90,000,000.

In addition to the above consolidations, all of which later entered into the United States Steel Corporation, there were enlargements and consolidations of other important companies, operating in the northeastern quarter of the United States, among which are notably the Republic Iron and Steel Company, the Pennsylvania Steel Company, the Cambria Steel Company, the Lackawanna Steel Company, and the Jones and Laughlin Steel Company. These companies, at the times of the reorganizations or later, increased their capitalizations to amounts varying from \$27,250,000 to \$47,500,000.

In the South the important Tennessee Coal, Iron, and Railroad Company had continued to expand during the same period, as had also the Colorado Fuel and Iron Company in the West.

Causes of Consolidation. — The Commissioner of Corporations gives as the causes which led to the consolidations described the desire to restrict competition among the constituent companies and the desire for integration. Both of these purposes were for the time accomplished. For

instance, the constituent companies of the Federal Steel did not compete among themselves. The matter of integration will be considered later.

During the period before consolidation the competition had been severe and prices alternately high and low, depending upon the trade conditions and the extent of coöperation. For a time excessive prices would be maintained; but at times of depression sooner or later agreements or pools would break and prices would go down. Thus upon the breaking up of an agreement, prices for steel rails fell from \$28 per ton in 1896 to \$17 or \$18 in 1897 and 1898. After the combination had been reëstablished, prices for rails went to \$35 per ton in 1899 and 1900, but in the earlier part of 1901 fell to \$26. Steel billets went from \$16.25 per ton to \$39.50 and back to \$16.50 between December, 1898, and October, 1900. During the same time wire nails went from \$20 to \$50 per ton and then back to \$30. These figures show how unequal and unsatisfactory were the conditions as to prices. When the independent mills or the combined companies could get together, and demands were large, prices would become abnormally high; as the demands decreased and the full capacity of the mills was not required, the combination would break and the prices become abnormally low.

Unstable
prices
under com-
petitive
system.

Organizations of the Corporation. — Before the consolidations of the companies producing highly finished products, the constituent companies bought their steel billets from the primary companies. After the consolidation they began to acquire ore and coal lands, to build blast furnaces, and to manufacture their own steel ingots; and thus they were planning to cease buying crude steel from the primary companies. This led the Carnegie Company to plan to build several plants for making the finished products. Similar plans were made by the Federal Steel Company. This contemplated extension of the two groups to become completely independent was the final factor which led suddenly in 1901 to the formation of the United States Steel Corporation. If the great companies of both groups could be united into a single corporation, the iron industry would be

completely integrated. The different lines of work could be divided among the subsidiary companies, and there would be great economy. Obviously also the combination would be in a more advantageous position to maintain prices than a number of independent companies. It was plain that the combination could not succeed unless the Carnegie Company could be acquired. Successful negotiations were entered into with Mr. Andrew Carnegie to this end, and thus, in April, 1901, the United States Steel Corporation was formed, consisting of the Carnegie Company of New Jersey, the Federal Steel Company, the American Steel and Wire Company, the National Tube Company, the National Steel Company, the American Tin Plate Company, the American Steel Hoop Company, and the American Sheet Steel Company. Shortly afterward there were acquired the American Bridge Company, the Lake Superior Consolidated Iron Mines, the Bessemer Steamship Company, and the Shelby Steel Tube Company. Each one of the manufacturing organizations included a number of manufacturing plants distributed at various points as well as other properties necessary to integrate the business, such as ore companies, coke companies, dock companies, railroad companies, gas companies, water companies, etc.

Companies
consoli-
dated.

The Steel Corporation as organized was essentially a holding company, having the stock of all of the subsidiary companies. These subsidiary companies held their subordinate properties in two classes, in fee and the stock of the subordinate companies. Thus the Carnegie Company of New Jersey was the holding company of the stock of twenty companies, ranging from the various works of the Carnegie Steel Company of Pennsylvania to the great Frick Coke Company.

A holding
company.

The United States Steel Corporation, when formed, had steel works with an annual capacity of 9,400,000 tons of crude steel, 1000 miles of railway, 112 lake ore vessels, iron ore deposits estimated to contain from 500,000,000 to 700,000,000 tons of ore, and more than 50,000 acres of high grade coal lands and numerous related properties. The

total number of plants under the control of the corporation exceeded 200. Since its organization it has acquired three steel companies in the same region in which were located the other properties of the corporation, namely, Union Steel, Sharon Steel, and Clairton Steel, these being acquired between 1902 and 1904. Finally, there was added in 1907 the great southern property, the Tennessee Coal, Iron, and Railroad Company.

Capacity
and
resources.

Overcapitalization. — The capitalization of the company in 1901, after acquiring the Shelby Company, was as follows:—

Preferred stock	\$510,205,743
Common stock	508,227,394
Steel Corporation bonds	303,450,000
Underlying bonds	59,091,657
Purchase-money obligations and real-estate mortgages	21,872,023
Total	<u>\$1,402,846,817</u>

As a result of careful investigation, the Commissioner of Corporations concluded that a fair valuation of the entire physical property of the United States Steel Corporation at the time of its organization was \$676,000,000. If the valuation were made upon a basis of the market value of the properties acquired, it would be approximately \$793,000,000, and this figure should include the good will of the going business. Using the higher figure, the capitalization of the United States Steel Corporation exceeded its face value by \$609,000,000. This shows conclusively that the common stock at the time it was issued was all water and that other securities were inflated. Indeed, the managers of the corporation justified their capitalization only by placing the ore deposits at practically one half of the complete valuation, \$700,000,000, a dollar a ton; which, as any one who was or is familiar with the situation knows, was an excessive valuation in 1901, especially as a large part of the ores are not owned in fee, and royalty must be paid to the fee holders. This valuation by the company was later admitted to be

Overcap-
italization.

excessive, since in 1907 the value placed upon the ore by the company was about fifty cents a ton, which if correct would indicate that the value in 1901 was still lower. The Bureau's estimate of the value of the ore at the time of the organization is about \$100,000,000. The comparisons between the estimated value of the properties by the corporation and by the Bureau is shown by the following table:—

TABLE 31. VALUE OF TANGIBLE ASSETS ACQUIRED BY STEEL CORPORATION IN 1901, AS COMPUTED BY BUREAU, COMPARED WITH ESTIMATE OF CORPORATION SUBMITTED IN THE HODGE SUIT IN JUNE, 1902

CLASS OF PROPERTY	BUREAU'S ESTIMATE OF TANGIBLE VALUES IN 1901	CORPORATION'S ESTIMATE OF TANGIBLE VALUES IN 1902	DIFFERENCE ¹
Ore property . . .	\$100,000,000	\$700,000,000	\$600,000,000
Manufacturing plants, including blast furnaces .	250,000,000	348,000,000	98,000,000
Railroad, steamship, and dock property . . .	91,500,000	120,340,000 ²	28,840,000
Coal and coke property . . .	80,000,000	100,000,000	20,000,000
Natural gas property	20,000,000	20,000,000	—
Limestone properties	4,000,000	4,000,000	—
Cash and cash assets	136,000,000	164,660,000 ³	28,160,000
Total	\$682,000,000	\$1,457,000,000	\$775,000,000

¹ A part of the differences between the two estimates is accounted for through additions made to property during the interval from April 1, 1901, to July 1, 1902, such additions, of course, being included in the corporation's figures.

² This figure includes \$40,340,000 of indebtedness which was not included in the estimate of the corporation, this addition being made in order to render the estimates comparable.

³ In arriving at this figure purchase money obligations and real estate mortgages of \$16,369,000, which were deducted by the corporation, were restored by the Bureau to make the amounts comparable.

As an incident to the organization of the company, of the stock issued by the corporation in 1901, \$150,000,000, including \$40,000,000 preferred, was for promoting and underwriting services. The cash received from this stock was probably in the neighborhood of \$100,000,000.

Since the corporation was organized in 1901, its earnings have been sufficiently large so that aside from paying interests on bonds, full dividends of 7 per cent on the preferred stock, and from 2 to 4 per cent on the common stock, sufficient money has been saved so that the net additions to the investments, December 31, 1910, amounted to \$504,928,653; thus, if the market value of the consolidating companies is taken as a basis, the excessive capitalization had at that time been reduced to about \$105,000,000. Using a more conservative valuation of the property made by the Commissioner of Corporations, the amount of water at the end of December, 1910, would be \$215,000,000.

Water made
into sub-
stance.

If the iron ore be now appraised on the basis of assessed valuation, and this seems reasonable, the ores controlled by the corporation are worth not less than \$380,000,000 (see pp. 129-132). But a considerable portion of these ores are subject to a royalty to the feeholders. If one fourth be deducted to compensate for this, the value of the ore to the corporation would be \$285,000,000. Using this figure, rather than \$100,000,000, for the present value of the ores, the appraisal of the properties of the corporation exceeds its capitalization by \$70,000,000. Apparently the mighty flood of water put upon the market when the United States Steel Corporation was organized has largely or wholly been transformed into substance.

Earnings. — The net earnings of the Steel Corporation by years from 1901 to 1910 are shown by Table 32.

TABLE 32. ACTUAL EARNINGS OF STEEL CORPORATION ON ITS TOTAL INVESTMENT, AS COMPUTED BY BUREAU, 1901-1910

YEAR	NET EARNINGS AS SHOWN BY ANNUAL REPORTS	ADJUSTMENTS BY CORPORATION IN SUNDRY ACCOUNTS	INTEREST ON BONDS, MORTGAGES, AND PURCHASE-MONEY OBLIGATIONS OF SUBSIDIARY COMPANIES	LOCKED-UP PROFITS IN INVENTORIES	EXCESSIVE DEPRECIATION ALLOWANCES	TOTAL ADJUSTED EARNINGS
1901 ¹	\$ 75,006,230.89	—	\$ 4,500,000.00 ²	\$ 3	\$ -1,765,000.00	\$ 77,741,230.89
1902	108,534,374.25	-1,207,886.84	6,113,584.34	3	8,062,272.00	121,502,343.75
1903	83,675,786.51	-5,427,540.33	6,553,861.06	3	9,354,851.00	94,156,958.24
1904	57,791,196.80 ⁴	+ 13,108.34	6,573,146.54	-1,254,336.48	-631,165.00	62,491,950.20
1905	96,432,595.93	- 99,253.78	6,710,214.73	6,307,189.83	3,480,088.00	112,830,834.71
1906	125,966,938.13	- 90,501.19	6,561,478.70	2,739,403.74	8,216,388.00	143,393,707.38
1907	133,244,929.28	- 681,515.52	6,492,195.42	9,744,692.51	6,616,572.00	155,416,873.69
1908	74,882,529.11	+ 394,034.59	7,401,205.18	426,983.85	1,688,543.00	84,793,295.73
1909	107,773,099.96	+ 548,445.08	7,887,178.18	2,617,395.54	1,981,460.00	120,807,578.76
1910	116,738,157.80	- 818,182.64	7,263,453.66	2,751,307.08	1,281,348.00	127,216,083.90
Total	980,045,838.66	-7,369,292.29	66,056,317.81	23,332,636.07	38,285,357.00	1,100,350,857.25

¹ Nine months.² Approximated; this amount never computed by the Corporation.³ In these years these inventory profits were not deducted by the Corporation and hence need not be restored.⁴ After deducting employees' bonus fund, which in this year was taken out after stating net earnings, but which in other years is deducted before determining the net earnings.

According to the Commissioner of Corporations the net earnings on the actual investment of the Steel Corporation from 1901 to 1910, ten years, was 12 per cent. It thus appears, according to the Bureau, that the earnings of the corporation for ten years have been \$1,100,000,000, or \$110,000,000 a year.

According to Mr. F. J. MacRae, for the nine years from January 1, 1902, to December 1, 1910, the adjusted net earnings amounted to \$1,029,685,389, or approximately \$13 per ton. He concludes that the percentage of net earnings for sales to outside consumers for this period amounted approximately to 29 per cent; and that 29 per cent of the selling price is equivalent to 40 per cent of the cost.¹

Proportion of Business. — The proportion of the iron and steel business of the country done by the organization is shown by the following table:—

TABLE 33. PROPORTION OF OUTPUT OF PRINCIPAL IRON AND STEEL PRODUCTS FOR UNITED STATES STEEL CORPORATION AND FOR INDEPENDENT COMPANIES, RESPECTIVELY, IN 1901 AND 1910

PRODUCTS	STEEL CORPORATION'S PERCENTAGES		INDEPENDENT COMPANIES' PERCENTAGES	
	1901	1910	1901	1910
Pig iron, spiegel, and ferro . . .	43.2	43.4	56.8	56.6
Steel ingots and castings. . . .	65.7	54.3	34.3	45.7
Rails	59.8	58.9	40.2	41.1
Structural shapes	62.2	47.0 ⁴	37.8	53.0 ⁴
Plates and sheets of all kinds ² . .	64.6	49.7 ⁴	35.4	50.3 ⁴
Black plate produced in tin mills .	79.8	52.9	20.2	47.1
Coated tin-mill products	73.1	61.1	26.9	38.9
Black and coated sheets produced in sheet mills	67.3	38.9	32.7	61.1
Wire rods.	77.7	67.3	22.3	32.7
Wire nails	68.1	55.5	31.9	44.5
Wrought pipe and tubes ³	57.2	38.2	42.8	61.8
Seamless tubes ³	82.8	55.3	17.2	44.7

¹ Investigation U.S. Steel Corporation, 53, Part I, pp. 3613-3614.

² Includes sheets for tinning, galvanizing, and other coatings.

³ These percentages are based on capacity and not production. The capacity of independent companies is, moreover, partly estimated.

⁴ For 1909; figures for 1910 not available.

Reduce
percent-
age of
output.

The total production of the iron and steel of the country by the Steel Corporation fell from 60.6 per cent in 1901 to 51.6 per cent in 1909, and of steel ingots and castings the total fell from 65.7 in 1901 to 54.3 in 1910. While there has been a decrease in the percentage of the domestic production, the total business of the corporation has vastly increased. The crude ingots produced increased from 9,743,918 tons in 1902 to 14,179,369 in 1910, or 45.5 per cent. The foreign business has been greatly extended, and of this line the Steel Corporation controls about 95 per cent. In 1911 there were exported by the corporation 1,719,272 tons of steel and other finished products. Such products are sold considerably cheaper abroad than at home, the differences per gross ton for 1910 being as follows: Steel rails, \$3.84; plates, \$3.93; standard shapes, \$4.50.¹

The foreign business is done through the United States Steel Products Export Company.² This company now controls ninety per cent of the total steel export trade of the United States. Until 1904 the company was allowed a three per cent commission on its business; but in 1904 it was reduced to two per cent. Any surplus over the actual requirements of the export company are to be rebated to the different companies, the products of which are sold. As a matter of fact the commission is fixed so that it meets the operating expenses of the company. The advantage to the Steel Corporation of the selling company is that the foreign business is handled as a unit and this is a matter of fundamental importance in the export trade. See pp. 222-224.

Cost of Production. — In Part II of the Report of the Commissioner of Corporations, the cost of production of steel is considered. Since this is the most elaborate available investigation of cost of production of a great fundamental article, and especially since it contains comparisons of the cost of the large and small companies engaged in the business, the summary of results is reproduced.

“Certain salient points are brought out by this investiga-

¹ Investigation U.S. Steel Corporation, No. 57, p. 5135.

² *Ibid.*, 53, Part I, pp. 3691-1695.

tion of costs. These points will be discussed in detail, but for convenience are here stated in summary form, as follows:—

“ 1. That cost statements for iron and steel products vary greatly on account of differences in scope of operations and in legal organization and accounting methods of different companies. Therefore, the statement and use of such cost data require the most careful discrimination.

“ 2. That the ‘book costs’ of highly integrated concerns (that is, those companies which link up under one control successive stages of production of materials and finished commodities) are not net costs, because they include large items of intermediate profit. These profits occur as the materials pass from one stage of production to another, because these materials are transferred from one department or subsidiary to another at market prices or at arbitrary ‘transfer’ prices, instead of at cost.

“ 3. That the average costs differed greatly, according as such intermediate profits were included or excluded, is shown by Table 34.

TABLE 34. COSTS OF VARIOUS PRODUCTS, INCLUDING INTERMEDIATE PROFITS

PRODUCTS	COST INCLUDING ALL INTERMEDIATE PROFITS	COST EXCLUDING INTERMEDIATE TRANSFER PROFITS ON MATERIALS ¹
Lake ore	\$2.64	²
Bessemer pig iron	13.89	\$12.10
Large Bessemer billets	20.11	17.90
Bessemer standard rails	21.27	18.80

“ The above are average costs for companies having a very large proportion of the total production in the United States for the five years 1902 to 1906.

“ 4. That if all these companies are divided into two groups, large highly integrated companies, and small companies

¹ This cost does not exclude, however, transportation profits, which are considerable in amount for the Steel Corporation, as explained later.

² No difference except for a trifling amount of intercompany royalty.

which generally were not well integrated, the average costs of the two groups differed decidedly. These differences were more marked when intermediate profits were excluded. The facts are shown by Table 35.

TABLE 35. COMPARATIVE COSTS OF SEVERAL PRODUCTS IN LARGE AND SMALL COMPANIES

PRODUCTS	COSTS INCLUDING ALL INTERMEDIATE PROFITS		COSTS EXCLUDING INTERMEDIATE TRANSFER PROFIT ON MATERIALS ¹	
	Large companies	Small companies	Large companies	Small companies
Lake ore	\$2.67	\$2.49	2	2
Bessemer pig iron	13.86	14.27	\$11.93	\$14.21
Large Bessemer billets	19.89	22.54	17.56	21.69
Bessemer standard rails	21.27	—	18.80	—

“These differences between the two groups are, of course, largely due to the fact that the more steps in production controlled by one concern the more intermediate profits go to that concern, instead of being paid to outsiders. Accordingly, when intermediate profits are excluded, the net cost for an integrated concern is less than for one not so highly integrated. It should be observed that the above figures show costs exclusive of transfer profits on materials, and not exclusive of transportation profits. Such transportation profits are earned by certain large companies, and above all by the Steel Corporation

“5. That while highly integrated concerns have a lower net cost than non-integrated concerns, and therefore a higher margin (not rate) of profit between costs and prices; yet, on the other hand, being so integrated, they have a larger investment to be covered by this margin of profit over net cost.

“6. That the costs for this period (1902 to 1906, inclusive) are substantially representative of present conditions. This

¹ This cost does not exclude, however, transportation profits, which are considerable in amount for the Steel Corporation, as explained later.

² No difference except for a trifling amount of intercompany royalty.

is shown by a comparison of costs for a number of important selected plants for several products from 1902 to 1906, inclusive, and for 1910.

"7. That the United States Steel Corporation has a special advantage in cost of production on account of its complete integration, particularly in producing all the ore and coke it uses, and in having railroads for ore transportation, which branches of its business yield great profits. The costs of the Steel Corporation are especially reduced if these intermediate profits are excluded, as is shown by Table 36.

TABLE 36. COMPARISON BETWEEN BOOK AND INTEGRATED COSTS OF SEVERAL PRODUCTS FOR THE UNITED STATES STEEL CORPORATION

PRODUCTS	BOOK COST	INTEGRATED COST EXCLUDING INTER-COMPANY PROFITS ON MATERIALS AND TRANSPORTATION
Lake ore	\$2.88	\$2.40
Bessemer pig iron	14.39	10.21
Bessemer standard rails . .	21.53	16.67

In considering these integration costs of the Steel Corporation, the much more extensive and diversified investment of that company should also be taken account of.

"8. That the indicated investment per ton of product for Bessemer steel rails for the period 1902 to 1906, taking conditions of business then prevailing, ranged from \$80 to \$55 per ton of rails. On the basis of a price of \$28 per ton for rails the profit for all companies whose costs (excluding transfer profits only) would be from 11 to 17 per cent on the investment.

"9. That the prices of lake ore have been kept for many years at an unreasonably high level compared with the cost of production and the cost of the investment in the producing ore properties. Consequently, integrated concerns, transferring such ore to the pig-iron producing departments of the business at those high prices, necessarily show an

unduly high book cost for pig iron and for various steel products made from pig iron.

“10. That this policy in regard to ore prices has two important results. For companies selling ore it tends to make remunerative the investment in vast ore reserves which are not at present utilized, and to unduly enhance the value of such properties. It also tends to make the cost of iron ore excessively high to companies which must purchase it in the open market, and thus prevents them from becoming effective competitors in pig iron or in steel products made therefrom.”

In the above statements and what is to follow the large companies are interpreted to include the following:—

1. The United States Steel Corporation, total capitalization, \$1,402,846,817.

2. The Lackawanna Steel Company, common stock \$60,000,000, preferred stock \$10,000,000, bonds \$75,412,000, total capitalization \$145,412,000.

3. Jones and Laughlin Steel Company, stock \$30,000,000, bonds \$24,487,000, total capitalization \$54,487,000.

TABLE 37. AVERAGE BOOK COST PER GROSS TON OF LAKE ORE AT LOWER LAKE PORTS, EXCLUDING INTERCOMPANY ROYALTY AND DISTINGUISHING LARGE AND SMALL COMPANIES, 1902-1906

ITEMS OF COST	ALL COMPANIES (106,268,728 tons)	LARGE COMPANIES (84,920,942 tons)	SMALL COMPANIES (21,347,786 tons)
Labor	\$0.45	\$0.44	\$0.50
Other operating .	.37	.38	.34
Royalty . . . .	.23	.23	.21
Mine cost . .	\$1.05	\$1.05	\$1.05
Rail freight . .	.67	.69	.58
Lake freight . .	.74	.74	.74
Lower Lake cost	\$2.46	\$2.48	\$2.37
General expense, depreciation, and taxes . . . .	.16	.16	.12
Total cost at lower Lake ports. . . .	\$2.62	\$2.64	\$2.49

TABLE 38. TOTAL COSTS PER GROSS TON FOR SPECIFIED PRODUCTS, ARRIVED AT BY ADDING TO THE AVERAGE MILL COSTS, AS SHOWN BY THE COST SHEETS, AN ASSUMED NORMAL CHARGE IN PLACE OF ADDITIONAL COSTS (GENERAL EXPENSES AND DEPRECIATION) 1902-1906

	ALL COMPANIES		SMALL COMPANIES		LARGE COMPANIES		DIFFERENCE BETWEEN SMALL AND LARGE COMPANIES	
	Book Cost	Excluding Transfer Profits	Book Cost	Excluding Transfer Profits	Book Cost	Excluding Transfer Profits	Book Cost	Excluding Transfer Profits
	Bessemer pig iron, furnace cost . . .	\$13.13	\$11.34	\$14.18	\$14.12	\$13.04	\$11.11	\$1.14	$3.01
Total cost (with assumed addition of \$0.50 per ton)	13.63	11.84	14.68	14.62	13.54	11.61	1.14	3.01
Basic pig iron, furnace cost	12.29	11.30	13.81	13.59	12.17	11.11	1.64	2.48
Total cost (with assumed addition of \$0.50 per ton)	12.79	11.80	14.31	14.09	12.67	11.61	1.64	2.48
Bessemer billet ingots, works cost . . .	16.64	14.55	19.96	19.10	16.45	14.28	3.51	4.82
Total cost (with assumed addition of \$0.60 per ton)	17.24	15.15	20.56	19.70	17.05	14.88	3.51	4.82
Bessemer rail ingots, ¹ works cost . . .	16.54	14.70	—	—	—	—	—	—
Total cost (with assumed addition of \$0.60 per ton)	17.14	15.30	—	—	—	—	—	—
Large Bessemer billets, mill cost . . .	19.01	16.80	22.51	21.66	18.69	16.36	3.82	5.30
Total cost (with assumed addition of \$1.10 per ton)	20.11	17.90	23.61	22.76	19.79	17.46	3.82	5.30
Heavy Bessemer rails, ¹ mill cost . . .	19.98	17.51	—	—	—	—	—	—
Total cost (with assumed addition of \$1.30 per ton)	21.28	18.81	—	—	—	—	—	—

¹ No small companies.

4. The Republic Iron and Steel Company, common stock \$27,171,000, preferred stock \$25,000,000, bonds \$18,439,500, total capitalization \$70,630,000.

5. Cambria Steel Company, stock \$45,000,000, iron company stock \$8,468,000, bonds \$6,000,000, total capitalization \$59,468,000.

For the years 1902 to 1906, the book costs, the transfer profits, and relative costs of the large and small companies are given for a number of products in the preceding tables. The data used includes only the Buffalo plant of the Lackawanna and only the Johnstown plant of the Cambria.

The costs of steel for the years 1902-1906 above considered do not differ greatly from those less thoroughly investigated for later years; this is shown by Table 39.

TABLE 39. COMPARISON OF AVERAGE BOOK COST PER GROSS TON OF LAKE ORE AT LOWER LAKE PORTS FOR 1902-1906, INCLUSIVE, WITH 1907-1910, INCLUSIVE, FOR THE STEEL CORPORATION AND TWO OTHER LARGE COMPANIES.

ITEMS OF COST	1902-1906 (88,082,551 tons)	1907-1910 ¹ (88,833,156 tons)	ITEMS OF COST	1902-1906 (88,082,551 tons)	1907-1910 ¹ (88,833,156 tons)
Labor . . .	\$0.43	\$0.35	Rail freight.	\$0.70	\$0.74
Other mining	.21	.20	Lake freight	.74	.72
Stripping and develop- ment . .	.03	.11	Cost at lower Lake ports	\$2.49	\$2.54
Depreciation	.13	.13	General charges .	.09	.16
Royalty . .	.25	.29	Total book cost . .	\$2.58	\$2.70
Cost at mine .	\$1.05	\$1.08			

The comparisons of different years for Bessemer pig iron and for Bessemer rails are shown by the following tables:—

¹ For 1910 includes the costs of the Steel Corporation only.

TABLE 40. COMPARISON OF BOOK COST PER GROSS TON OF BESSEMER PIG IRON AT THREE FURNACE PLANTS OF THE STEEL CORPORATION FOR 1902-1906 WITH 1910

ITEMS OF COST	1902-1906 (13,051,404 tons)	1910 (2,668,230 tons)
Net metallic mixture	\$7.39	\$8.77
Coke	4.05	3.94
Limestone . . . . .	.40	.40
Labor . . . . .	.67	.48
Other operating . . . . .	.73	.43 ¹
Furnace cost ²	\$13.24	\$14.02

TABLE 41. COMPARISON OF BOOK COST PER GROSS TON OF HEAVY BESSEMER RAILS AT TWO PLANTS OF THE STEEL CORPORATION FOR 1902-1906 WITH 1910

ITEMS OF COST	1902-1906 (5,944,409 tons)	1910 (923,651 tons)
Ingots	\$16.94	\$17.86
Labor	1.01	1.14
Fuel . . . . .	.10	.17
Other operating . . . . .	.94	1.06
Works cost ²	\$18.99	\$20.23

For 1910 the book, intercompany profits, and integration costs for some of the principal products of the Steel Corporation are shown by the following tables:—

¹ The items covered in this figure show a lower aggregate sum in 1910 than for the previous period chiefly on account of credits for gas used in other departments of the works.

² This does not include any allowance for "additional costs" shown on profit and loss accounts.

TABLE 42. STEEL CORPORATION'S FURNACE COST PER GROSS TON OF BESSEMER PIG IRON, AS SHOWN BY PRODUCING SUBCOMPANIES' COST SHEETS, APPROXIMATE INTERCOMPANY PROFITS INCLUDED THEREIN, AND INTEGRATION FURNACE COST, AS SHOWN BY THE RECORDS OF THE CORPORATION, FOR 1910 (6,269,534 tons)

ITEMS	COMPANY OR BOOK COST	INTERCOMPANY PROFIT (APPROXIMATELY)	INTEGRATION COST (EXCLUSIVE OF ANY RETURN TO INVESTMENT OR ANY ANTERIOR STAGE OF PRODUCTION OR TRANSPORTATION)
Net metallic mixture	\$8.63	\$3.68	\$4.95
Coke	3.79	.49	3.30
Limestone . . . . .	.42	.01	.41
Labor . . . . .	.55	—	.55
Other operating . . . . .	.50 ¹	²	.50
Furnace cost ³	\$13.89	\$4.18	\$9.71

TABLE 43. STEEL CORPORATION'S MILL COST PER GROSS TON OF HEAVY STANDARD BESSEMER RAILS, AS SHOWN BY PRODUCING COMPANIES' COST SHEETS, APPROXIMATE INTERCOMPANY PROFITS INCLUDED THEREIN, AND INTEGRATION MILL COST, AS SHOWN BY THE RECORDS OF THE CORPORATION, FOR 1910 (923,651 tons)

ITEMS OF COST	COMPANY OR BOOK COST	INTERCOMPANY PROFIT (APPROXIMATE)	INTEGRATION COST (EXCLUSIVE OF ANY RETURN TO INVESTMENT OR ANY ANTERIOR STAGE OF PRODUCTION OR TRANSPORTATION)
Ingots	\$17.86	\$4.83	\$13.03
Labor	1.14	—	1.14
Other operating	1.23	.03 ⁴	1.20
Mill cost ³	\$20.23	\$4.86	\$15.37

¹ The amount of this item was \$0.69 before deducting credit for furnace gas used in other department, namely, \$0.19.

² Intercompany profits \$0.002 and losses \$0.002.

³ This does not include any allowance for "additional costs" shown on the profit and loss account.

⁴ In fuel, steam, materials, and provision for rolls.

TABLE 44. STEEL CORPORATION'S MILL COST PER GROSS TON OF HEAVY OPEN HEARTH RAILS AT NORTHERN AND SOUTHERN PLANTS, AS SHOWN BY PRODUCING COMPANIES' BOOKS, APPROXIMATE INTERCOMPANY PROFITS INCLUDED THEREIN, AND INTEGRATION MILL COST, AS SHOWN BY THE RECORDS OF THE CORPORATION, FOR 1910

ITEMS OF COST	NORTHERN (530,955 tons)		INTEGRATION COST (EXCLUSIVE OF ANY RETURN TO INVESTMENT OR ANY ANTERIOR STAGE OF PRODUCTION OR TRANSPORTATION)	SOUTHERN (323,061 tons)
	Company or Book Cost	Intercompany Profit (approximate)		Company or Book Cost (which does not include any intermediate profit)
Ingots . . .	\$18.37	\$3.54	\$14.83	\$14.86
Labor . . .	1.19	—	1.19	1.72
Other operating	1.35	.02	1.33	2.66
Mill cost ¹ .	\$20.91	\$3.56	\$17.35	\$19.24

The value of iron ore.—The iron ore holdings of the United States Steel Corporation are very important for the future. Excluding the Hill ore leases, which are to be dropped in 1915, the United States Steel Corporation controls 60 per cent of the available Lake Superior ores or about 800,000,000 tons. The total holdings of the corporation are placed at 1,200,000,000 to 1,500,000,000 tons. The author is aware that these figures are lower than those of others, but they are based upon careful estimate from the most reliable original sources of information. The Steel Corporation in Minnesota owns railroads from the ore fields to the mines, and also owns ore roads from the Lake Erie to the Pittsburg district. Further, it owns the boats it uses on the lakes. It is thus in a commanding position in resources.

Amount of ore owned or controlled.

The ore is the fundamental resource upon which rests the entire steel industry. Therefore the question of ore costs is one of paramount importance. For the year 1902 to 1906 these are shown by the following table:—

¹ This does not include any allowance for additional costs shown on the profit and loss accounts.

TABLE 45. AVERAGE COSTS, PRICES, AND PROFITS ON LAKE ORE, PER GROSS TON, BY YEARS, 1902-1906

YEAR	TONNAGE	COST PER TON	PRICE PER TON	PROFIT PER TON
1902	20,111,011	\$2.77	\$3.34	\$0.57
1903	17,627,423	2.70	3.57	.87
1904	16,555,393	2.70	3.06	.36
1905	26,093,788	2.58	3.18	.60
1906	29,036,426	2.64	3.47	.83
1902-1906 . . .	109,424,041	\$2.67	\$3.33	\$0.66

As we have seen, the Commissioner of Corporations computed the value of the ores when the organization was formed at \$100,000,000; at the close of 1910, he placed the total investment in ores at about \$134,000,000. This makes a capital account of \$7.50 to \$7.55 per ton of production. On this basis a profit of 66 cents per ton would be equivalent to about 9 per cent. The Commissioner regards this valuation as excessive. He thinks that on the basis of carrying an ore reserve of from thirty to thirty-five years, the amount invested per ton of ore probably would be less than \$5 and that a profit of 66 cents per ton on the ore is too large by at least 25 cents.

In this matter, the question may well be raised whether the Commissioner of Corporations has not overlooked one very important factor. In order to justify the vast investments of the United States Steel Corporation in the improvement of the mines, development of transportation, and the construction of the great mills, the industry must have a considerable future. If the Steel Corporation owns only enough ores to carry on its business for thirty years, it must not only provide for current depreciation, but the entire capital account must be written off before the end of that period. When the ores are exhausted, the entire capital outlay is valueless.

For the larger part of the investment of the Steel Corporation the situation is similar to that in a mine. It is not only

Profits
on ore.

Ore the
basic
resource.

necessary to provide for the outlay and improvements at the mine, but it is necessary by the dividends to write off the entire capital account by the time the ore deposit is exhausted.

It may, however, be said that only the high grade ores are now considered in the estimated resources and that the corporation owns great reserves of low grade ores, which will enable the company to carry on its business when the high grade ores are exhausted. This is undoubtedly true; but if lower grade ores are used, those from 35 to 45 per cent metallic iron, the cost of manufacture will be greatly increased; and if this be so, it would be reasonable to allow much more than the profit of an ordinary manufacturing business for the rich ore from the mines. Until this factor is taken into account it cannot be said what profit should be allowed to the ores.

Fundamental natural resources, limited in quantity, have an exceptional value because of their early exhaustibility; and methods of computation based upon the hypothesis that illimitable quantities may be acquired, as convenient, cannot but lead to fallacious results. The extremely limited quantity of known high grade iron ores, as compared with the certain needs of this century, justify a corporation having the great manufacturing and transportation properties of the United States Steel Corporation in acquiring ore reserves as far ahead as they can be obtained at reasonable figures, and after obtaining them in placing a high value upon them.

High valuation of ore justified.

The above reasoning is fully confirmed by the rapid increase in the assessed valuation of the Lake Superior Iron lands. In 1906 the assessed value of the iron-bearing lands of Minnesota was \$64,486,409; in 1910 it was \$224,669,845, or nearly four times as much. This assessment was made upon the basis of forty per cent of real value; therefore the value of the iron ores of Minnesota for 1910 was not less than \$561,674,612.¹ Of this ore, excluding the ores of the Hill leases, the United States Steel Corporation owns or controls sixty per cent. . According to these figures the value of the ores controlled by the corporation in Minnesota

¹ Iron Ore Manual, Lake Superior District, 1911. Rukard Hurd, p. 24.

would be \$337,004,767. In 1911 the ores of the corporation in Michigan, on the theory of full valuation but as a matter of fact below the value, were assessed at \$42,645,000.¹ Therefore the ores in Michigan and Minnesota controlled by the corporation on the basis of assessment have a value of not less than \$379,649,767, or nearly three times the estimate of \$134,000,000 given by the Commissioner of Corporations.

As further evidence of the soundness of the above position may be cited the rising price of timber. It is pointed out (pp. 159-160) that good timber, well located, during the past twenty years, has increased in value from six to fifty fold; and that the larger part of this increase has occurred during the second half of this period. Much of the increase is unquestionably due to the limited quantity of this resource; although it is true that a part of it is due to the consolidation of holdings. The existing timber will be likely to meet the needs of the nation as long as the discovered high grade iron ore; and there is this difference: the timber is renewable, indeed, is being renewed one third as fast as it is cut, whereas the iron ore cannot be increased by a ton through any effort of man. It would seem that the fortunate owners of high grade iron ore are justified in increasing its valuation at least as rapidly as the owners of timber.

Practices of the Corporation.—Regarding methods of consolidation, the United States Steel Corporation illustrates only a single phase of the process. Before this organization was formed, the trust had been declared to be unlawful, and consequently the steel company became a holding company for all of the stock of its subordinate companies; and in turn each of these subordinate companies is to a greater or less extent a holding company of subsidiary companies. As we have already seen, the Carnegie Company of New Jersey was strictly a holding company. The dividends of the subsidiary companies, the stock of which is owned, goes to the Steel Corporation, and the Steel Corporation in turn declares dividends, it being the only stock which the public holds.

¹ Investigation U. S. Steel Corporation, 28, p. 2020.

In the matter of combination with other companies there is no charge that the Steel Corporation, as such, has entered into a formal agreement to regulate prices and outputs. However, there have been meetings of the men engaged in the iron and steel business of the United States, representing nearly 90 per cent of the total, in which the entire situation has been gone over; and there has been an informal understanding as to spheres of influence and prices, under which, while there has been competition for business, there has been no severe fluctuation in price. In fact, steel rails have been held at \$28 per ton since the time the corporation was formed.¹

Mutual
under-
standings
of com-
panies.

In the complaint made by the Attorney-General, petitioning for the dissolution of the Steel Corporation, it is alleged that at these meetings, the different corporations "reached a common understanding which was followed under solemn admonition that they were bound by an obligation more estimable than life. These meetings brought about the maintenance of prices. It was understood by them that they were traveling together, and that they were going to stand together. They understood and acted upon the understanding that a statement as to what one would do as to prices or output was a promise and a pledge upon honor to the others. At the meeting of January 11, 1911, and other meetings, there was a general expression of opinion that prices should be maintained, and in pursuance of this understanding and agreement they were maintained. When an understanding was reached, individual declarations were made of intention to follow the movement. It was recognized that they followed the policy laid out by them by the head of the corporation. This meeting of January 11, 1911, was attended by about 80 representatives of iron and steel concerns, being a large majority in number and output of such concerns in the United States. They understood that the purpose was to consider the prices of iron and steel, that the consensus of opinion was that the prices should not be lowered, but that they should be maintained, and that by virtue of what occurred, they were in honor bound to each other to maintain

¹ Investigation U. S. Steel Corporation, 57, pp. 5138-5139.

them. In fact, they, in pursuance of this action, did maintain them." In the answer to the complaint, it is denied that at any "time was there any attempt to reach any agreement or understanding with respect either to output or to prices, nor was anything said or done which was calculated or intended to suppress competition or restrain trade, and there never was nor is there now any such agreement or understanding."

To what extent the charges made will be proved to be true is yet to be seen; but there can be no doubt that since the formation of the United States Steel Corporation, prices have been steady as never before in the steel trade in this country when conditions of severe and sometimes destructive competition alternated with pools or gentlemen's agreements. The regulation of prices appears to be the chief objection which has been made against the corporation. That the corporation has a steadying influence upon prices is undoubtedly true. Also it seems that the profits of the corporation, as given pp. 117-119, have been excessive. Further, the corporation has required unreasonably long hours of labor from a part of its force, and has opposed labor unions.

The Efficiency of the Corporation.—The economic advantages which have resulted from the Steel Corporation include all of those which have been assigned in the general discussion as a justification for concentration. However, there are certain points in which the concentration has led to especially important savings. These will be briefly mentioned.

The complete integration of the industry has given very high efficiency. The company, owning its ore, coal, and limestone, and owning its transportation lines, including railroads to and from the lakes and the steamboats on the lakes, has been able to get to its various furnaces the material in quality and quantity as desired. Owning a very wide variety of ores, the ores of different qualities have been brought to a given furnace in such proportions as to give the proper mixtures for the particular grade of iron needed at that point. If for Bessemer use, the material is low in phosphorus; if for conversion into steel by the open hearth process, it is

Complete
integrated
integration.

somewhat higher in this element; if for foundry iron, the phosphorus is much higher.

Since the many millions of tons of ore needed by the corporation must go to the lakes and down the lakes to the docks or to the furnaces during approximately seven months of the year, the advantage of control of the transportation for the ores has been very great. Indeed, it is extremely doubtful if, without such control, it would have been possible for the corporation to have retained the highest efficiency.

Since the corporation has a set of mills to produce articles of various kinds at the great industrial centers of Pittsburg and Chicago, and to a less extent at many other points from Superior to Cleveland, cross freights have been reduced to a minimum. To illustrate, the products needed south and west of Chicago are furnished by the mills about that city. As the corporation has a large number of plants, it has been able to specialize its mills, in many cases a single mill giving almost its entire energy to a certain product, or if not to a single product, to a set of similar products. This has enabled the corporation to go far in standardizing its goods, which is a very great source of economy. Bridge materials are turned out in definite lengths, widths, thicknesses, and forms; so also iron rods, bars, etc. These practices obviate frequent changes in the rolls.

Specializa-
tion of
mills.

The manufacture of iron and steel is one which is constantly requiring scientific investigations. The magnitude of the corporation has enabled it to keep a strong investigating department for improvements, mechanical and chemical; and this department has carried on extensive experiments which could not have been undertaken by a small company. Through the investigating department many advances have been made. Thus it has been ascertained that with the Pennsylvania coal a very considerable percentage of Illinois coal can be mixed and a satisfactory coke be secured for the manufacture of iron. This has markedly decreased the expenses for coke at the furnaces in the Chicago district.

Investi-
gating de-
partment.

It is sometimes held that the great corporation does not secure as efficient management of its individual plants as

Comparison
of man-
agement.

smaller organizations; but this cannot be said to be true of the Steel Corporation. This is a holding corporation; the officers of the subsidiary companies are retained, the same as before the consolidation. These officers have had the stimulus to efficiency, not only of general published results, but of actual comparison of the results of one management with another by parallel columns under the strictest system of cost accounting. Indeed, the competition for efficiency between the different subsidiary companies of the Steel Corporation has been nothing short of terrific. However, before the consolidation, the competition was of the keenest between the different mills of the same class in the Federal Steel and Carnegie corporations. There is a general belief that the alertness of management and the efficiency under the Steel Corporation has not deteriorated as compared with the situation before its formation.

Relative Efficiency of Large and Small Steel Companies.—All of the above conclusions rest upon qualitative rather than upon quantitative studies. While the report of the Commissioner of Corporations does not give the data to enable us to make a statistical statement regarding the economic advantages of the Steel Corporation as compared with other companies, it does furnish material to make a comparison in this respect between the Steel Corporation together with four other large concerns (Lackawanna Steel Company, Jones and Laughlin Steel Company, Republic Iron and Steel Company, and Cambria Steel Company), and the small concerns.

Tables 37 and 38 (pp. 124–125) show that while the cost of ore at the lower lake ports for the small companies is somewhat less than for the large companies, \$2.49 as compared with \$2.64, that for the manufactured products the cost is always greater for the small companies than for the large companies; and this is so whatever the basis of comparison. Thus taking book costs: Bessemer pig iron costs the large companies \$13.04 per ton as compared with \$14.18 for the small companies, a difference of \$1.14; basic pig iron costs the large companies \$12.17 as compared with \$13.81 for the small companies, a difference of \$1.64; large Bessemer billets cost

Costs
greater for
small com-
panies.

the large companies \$18.69 as compared with \$22.51 for the small companies, a difference of \$3.82.

If transfer profits be included, even greater differences appear. Thus the costs of Bessemer pig iron on this basis are for the large companies \$11.11 per ton as compared with \$14.12 for the small companies, a difference of \$3.01; for basic pig iron \$11.11 for the large companies as compared with \$13.59 for the small companies, a difference of \$2.48; and for large Bessemer billets, \$16.36 for the large companies as compared with \$21.66 for the small companies, a difference of \$5.30.

In the above statement the advantages which the large companies have in the matter of transportation are included. For the Steel Corporation it is estimated that the average profits on transportation amounted to 60 cents per ton upon the ore; this would be roughly equivalent to \$1 a ton on the products above mentioned. The profits of the Steel Corporation on transportation were undoubtedly much greater than those of the other companies, and therefore for the average of the four companies \$1 for the profits of transportation are too high; 75 cents may perhaps be accepted as a rough approximation. If this amount be subtracted from the excess profits of the large companies, they still have a wide margin over the small companies.

Economic
merits of
large and
small
companies.

The above data do not give a basis upon which to compare the economic merits of the large and small companies, since in the integrated industry the production of a ton of steel involves a larger capital per ton of output than for the small companies. The capital of the small companies includes only the cost of mills to transform billets into steel products, whereas for the larger companies much capital is invested in the part of the industry anterior to the billets.

Unfortunately the report of the commissioner does not give the capital accounts of the large and small companies, nor determine the amount which should go to interest on this account per ton of product, and thus enable us to ascertain the net advantage of the larger company per ton over the

small company, nor even to determine whether such net advantage exists.

Great companies may destroy small ones.

However, the facts available show, if ruthless competition were to occur regardless of interest on capital, that the large companies would be able to destroy the small ones; because by eliminating transfer costs the great companies have their materials at the final mills at a lower rate than the small companies. At a figure for final products which would eliminate all profits for small companies, the large companies would still have a profit on pig iron and billets of from \$2.48 to \$5.30, as shown by the last column of Table 38. Thus the large companies, if they were willing to reduce profits below the above amounts and pay a very small interest on capital, could compel competitors to close up or run at a loss.

The figures of the commissioner seem to show beyond question that if competition be carried on without reference to the percentage of profit on the capital invested, the large steel companies could crush the smaller ones.

Relative Efficiency of the Large Steel Companies. — The very interesting question as to the relative strength of the United States Steel Corporation, as compared with the other four companies reckoned as large, is not taken up by the Commissioner. Would a similar comparison of the Steel Corporation with these companies, excluding transfers, show a greater profit per ton than the other four large companies? The high integration of the Steel Corporation would seem to render this possible. If this be so, just as the large companies could crush the small companies, so the Steel Corporation could crush the other large companies, if the competitive system were pushed to the limit with the aim of destroying all competitors.

This comparison raises the question whether the consolidation of the great constituent companies of the United States Steel Corporation because of that fact increased their joint efficiency; that is to say, could the companies of the size of Federal Steel, Carnegie Steel, and the American Steel and Wire Company have continued their business with an

efficiency equal to that of the Steel Corporation? This is the crux of the question concerning the relation of economy and extent of consolidation for iron and steel. It is agreed by all, that in this industry an organization to be highly efficient must be large; that it is necessarily one of great concentration. Is a capitalization of from \$50,000,000 to \$100,000,000 for a steel corporation sufficient to give the maximum economy? Some men believe that the undoubted economies due to complete integration, avoidance of cross freights, specialization of work in the different mills, etc., enjoyed by the United States Steel Corporation are more than compensated by deterioration which it is charged has been introduced because of the gigantic size of the corporation. It is, in short, asserted that magnitude has gone beyond the stage giving increased efficiency.

Relative efficiency of great companies.

On the other hand, it is held by Mr. Gary,¹ Chairman of the Steel Corporation, that none of the great independent companies could hold their ground against it if competition was driven to its final limit.

This view is confirmed from other sources. The *Wall Street Journal* states that in 1911 the net profits of the Steel Corporation were close to \$11 a ton; whereas the highest profits of the independent companies were approximately \$7 per ton; and the average of the independents not much more than \$4 per ton. These figures are confirmed by the elaborate investigations of Mr. Farquhar I. MacRae for the Congressional Committee. It therefore appears that if unrestrained competition were introduced into the iron and steel industry it would be possible for the United States Steel Corporation to crush its competitors.²

To throw further light upon this subject, it is to be hoped that the Commissioner of Corporations will compare the cost of production of the large steel companies among themselves as he has the larger companies with the

¹ Investigations U. S. Steel Corporation, 53, Part I, pp. 3690-3691.

² See also testimony Chauncy M. Dutton, Hearings Senate Interstate Commerce Committee, XIX, pp. 1672-1699.

smaller ones. Also it is to be hoped that these investigations will take into account interest on capital in order that we may have exact data to base a conclusion concerning the relative economic efficiency of the large independent organizations, and of these as compared with the small companies.

Summary of Evils. — In conclusion, the chief evils which have appeared in connection with the United States Steel Corporation are: —

1. Unparalleled overcapitalization.
2. Large sums paid to organizers and manipulators at the time of the conversion of the preferred stock into bonds.
3. Excessive prices; these have resulted in enormous earnings.
4. Selling products cheaper abroad than at home.

SECTION 4

THE AMERICAN TOBACCO COMPANY¹

The tobacco industry is one of those in which a single combination controlled a large percentage of the business of the United States until the organization was dissolved by order of the Supreme Court into fourteen companies.

History of Company. — The dominant corporation in the tobacco industry during recent years has been the American Tobacco Company. This company had three great subsidiary companies, the American Snuff Company, the American Cigar Company, and the British-American Tobacco Company. All four of these companies controlled a large number of subsidiary companies, the total number of companies under the combination doing business in the United States, Porto Rico, and Cuba being eighty-six.

This group of companies in 1909 controlled 92.7 per cent of the cigarette business of the country, 62 per cent of the plug tobacco, 59.2 per cent of the smoking tobacco, and in 1901,

¹ Report of the Commissioner of Corporations on the Tobacco Industry: Part I, Position of the Tobacco Combination in the Industry; Part II, Capitalization, Investments, and Earnings. Washington, Government Printing Office, 1909, 1911.

the first year it entered the snuff business, 80.2 per cent of the snuff. Later the American Tobacco Company entered the cigar business and by 1903 it had acquired about one sixth of the cigar output of the United States. The capitalization of the companies of the combination in stocks and bonds, when reported upon in 1909 by the Commissioner of Corporations, was, without counting duplication of stock by interholdings, \$316,346,281.

Monopolistic position.

The business of the American Tobacco Company included the manufacture and handling of chewing and smoking tobacco, of cigarettes for domestic consumption, and little cigars, together with enterprises allied with the tobacco industry. The American Snuff Company confined its operations to the manufacture of snuff. The American Cigar Company, with its subsidiaries, handled the cigar business of the combination. The British-American Tobacco Company handled all the foreign business of the company. The dominating organization was the American Tobacco Company, which held a majority of the capital stock of the American Cigar and the British-American Companies, and over 40 per cent of the stock of the American Snuff Company.

Scope of business.

The total number of companies absorbed in building up the combination was in the neighborhood of two hundred and fifty. The organization went through three stages. It began with the formation of the American Tobacco Company in 1890. This company, beginning with the manufacture of cigars and cigarettes, soon expanded its operations into the plug tobacco business. By carrying on a vigorous war, the American Tobacco Company acquired a number of its competitors, and in 1898 united with the strongest of the others into the Continental Tobacco Company. Following this, in 1900, came the snuff combination under the name of the American Snuff Company. This presents the first stage of combination.

Two hundred and fifty companies absorbed.

In 1901 the Consolidated Tobacco Company was formed, which took over the Continental and American Tobacco Companies, being itself strictly a holding corporation. As a result of a campaign of the new combination to push its

business in Great Britain, the British-American Tobacco Company was formed in 1902 for the foreign tobacco business outside of Great Britain and the United States.

After the decision of the Supreme Court dissolving the Northern Securities Company (see p. 180), the companies above mentioned were merged in 1904 into one corporation, the reorganized American Tobacco Company.

In the process of growth of the American Tobacco Company, we have illustrated all of the stages of most of the great concentrations of industry, with the exception of pools and trusts, which stages of development had been gone through before the organization of the first American Tobacco Company. These included the consolidation of numerous companies into a large company, then control of groups of companies through holding companies, and finally a single consolidated combination, the American Tobacco Company.

Overcapitalization. — At each step in the development of the American Tobacco Company, there was opportunity for increasing its securities, both stocks and bonds; and this was done at each transformation upon a great scale; accrued earnings and good will were capitalized and common stock was issued as a bonus. Each company when taken into a new organization was treated most liberally in the estimate of values, in some cases the amount of bonds issued being double stock previously held. In 1908 the good will of the American Tobacco Company represented a capitalization of \$105,000,000; whereas its cash value according to the Bureau of Corporations was only about \$39,000,000, or 37 per cent. Altogether, the transformations resulted in the enormous capitalization mentioned.

As illustrating the amount of the expansion, it may be said that the capital of one of the constituent businesses of the company in 1885 was \$250,000. When the American Tobacco Company was organized this went in on the basis of \$7,500,000 in stock. By 1908 the readjustment of this amount had reached \$22,000,000; and cash dividends and interest had amounted to \$16,900,000. Thus an original

Stages of
develop-
ment.

Expansion
of stock.

investment of \$250,000 had by 1908 realized in stock, bonds, dividends, and interest \$39,000,000, or one hundred fifty-six times the value of the business in 1885.

Illegitimate Competition. — After the combination formed, the methods of ruthless competition were used. Having control of several lines of business, when a new line was entered, there were put upon the market certain brands which were sold either at no profit or at a loss. These were called "fighting brands." In the case of plug tobacco, one of these was appropriately called "Battle Ax"; another was known as the "Horse Shoe." In order more effectively to carry on destructive competition some twenty or more companies were secretly purchased, and, while a part of the American Tobacco Company, were supposed to be independent firms. These companies were used in the campaign of underselling; and in this way public disapproval of the illegitimate campaign was avoided by the American Tobacco Company. Exclusive contracts were made with sellers, and bonuses given for compliance with the same. The business of competitors was placed under secret espionage. The methods of competition were so fierce as often to destroy the weaker competitors. Others found too strong to be killed by the illegitimate methods of competition were purchased from time to time, usually at very high prices. Continuity in the plans for expansion and monopoly was secured through a group comprising only about half a dozen men who always controlled the business of the American Tobacco Company, the center of the organizations and reorganizations.

International Combination. — After the American Tobacco Company had acquired a dominant position in the United States, the British market was vigorously entered. In order to meet the competition of the strong American company, many British companies united into the Imperial Tobacco Company; and thus the forces of the war were equalized. This led to a mutual agreement upon the part of the combinations, each to respect the territory of the other, leaving the British field free to the British Company and the American field to the American Company. At the

same time the two combinations united to form an additional company, the British-American Tobacco Company, which was to push vigorously the tobacco business in all other parts of the world, except the United States and Great Britain. Thus the formation of the great combination in America led to a similar combination in Great Britain, and also made a step toward world combination.

Expansion into Allied Businesses. — As is usual when a great combination is formed, the companies concerned went into allied businesses. Since licorice is one of the important materials used in the manufacture of tobacco, this was one of the businesses which was entered; and the American Tobacco Company obtained more than 95 per cent, nearly a complete monopoly, of the licorice business of the United States.

In addition to acquiring allied manufacturing businesses, the American Tobacco Company had a stock interest, often controlling, in the concerns of the country which were engaged in the distribution of tobacco.

Concentration of Manufacture. — The organization concentrated the manufacturing of tobacco in a limited number of large plants, the small plants which were acquired from time to time being closed. Also the manufacture of tobacco was specialized, a given great factory devoting itself to one line of product. Thus, while there were two hundred and fifty or more plants acquired, the main part of the business of the company was carried on in the great plants. The cigarette and little cigar business was conducted in nine plants; all of the business in plug and twist tobacco was carried on in six plants, and about seven eighths of this amount in two plants. About 30 per cent of the business was distributed among ten subsidiary companies, of which the relation of eight with the American Tobacco Company was kept a secret. Half of the business of the fine-cut tobacco was done in nine plants and the remainder in subsidiary plants. The entire snuff business of the company was conducted in ten plants, four directly owned and six subsidiary. Thus through size and specialization the com-

bination had a marked advantage over its competitors; and still further advantage was gained by the control of more efficient machinery for marketing.

Excessive Profits. — The profits of the combination were very large. After the formation of the reorganized American Tobacco Company in 1904, the average earnings upon actual investments to 1908 were 19 per cent, or \$31,200,000 yearly; and this upon the basis of a capitalization of \$316,000,000, which we have already seen was reached by several manipulations, each with great expansion of the stock and bonds.

The combination was greatly assisted in securing these enormous profits through changes in the internal revenues. In 1898, as a result of the Spanish War, taxes were greatly increased upon tobacco and prices were raised accordingly. In 1901-1902 this tax was reduced to its former level; but by this time the combination had become sufficiently powerful to hold up prices, so that practically all of the advantage of the reduction of the tax on the manufactured tobacco from twelve cents to six cents per pound went, not to the consumer, but to the combination, in this way adding many millions to its income.

War tax
benefits
combina-
tion.

The enormous profits of the combination were thus due largely to the following causes: the reduction of the Spanish war tax, the capitalization of the good will of the business at each consolidation or reorganization, putting in surplus to increase the capital stock, exchanging at inflated values at times of reorganization, and issuing common stock as a bonus.

These enormous earnings were derived from an article mainly sold in small packages. Much the greater proportion of the retail sales of tobacco is in amounts of fifty cents or less; but tobacco is very widely used. The American Tobacco Company, by adding a little additional tribute to the purchases of millions of people, has made fabulous profits.

According to the Commissioner of Corporations the rates of profit obtained by independent concerns average much

lower than those of the combination.¹ The average rate of earnings of forty-eight independent companies for 1906 was 15.9 upon the total tangible assets; whereas, for the same year the earnings of the American Tobacco Company were 40.9 of its tangible assets or more than three times as much.²

Monopoly and Competition.—Notwithstanding the great advantage which the American Tobacco Company had through large plants, specialization of business, and control of machinery, the competitors of the combination steadily gained in their business; and this in spite of the fact that they were put to great expense for advertising to meet the “fighting brands” of the American and illegitimate competition through secret companies. This was possible because of the enormous profits which the combination was taking. These facts go to show that even a combination of gigantic size, controlling 80 per cent of the business of the country along various lines, may exist, and competitors gain upon it, if the prices charged are very excessive and the profits correspondingly great. They indicate that there is a limit beyond which extortionate charges may not be levied. If the amount of tribute be made too great, even fear of a mighty combination will not prevent capital from entering a business in order to share in the great profits. Upon the other hand, the facts clearly show that excessive prices may be retained sufficient to give the combination enormous profits. This is true for the American Tobacco Company, even upon the basis of the fictitious capitalization; and if we consider the great gains made by the chief manipulators of the company at the various transformations, the profits for these men are nothing short of amazing.

It is the opinion of the Commissioner of Corporations that almost from the outset it was the aim of the American Tobacco Company to acquire monopoly. This plan was first applied to one line of business, the cigarette and little cigar; from this it was extended to plug tobacco and

The limits
of tribute.

Aim to
gain
monopoly.

¹ “The Tobacco Industry,” Part II, p. 314.

² *Ibid.*, pp. 326, 328.

later to snuff and fine-cut tobacco. The purpose was largely accomplished in these lines, since the combination succeeded in getting four fifths of the business of the country; but the combination never accomplished its purpose in the cigar business, the maximum proportion gained in this line being about one sixth. The dissolution of the American Tobacco Company by order of the courts is discussed pp. 183-187.

Summary of Evils.—The chief evils illustrated by the American Tobacco Company are:—

1. Overcapitalization, and especially excessive capitalization of good will, exchanges at each reorganization at inflated values, and giving common stock as bonus.

2. Stock manipulation. The reorganizations were made in such a manner as greatly to benefit those who were on the inside.

3. Excessive prices due in large measure to monopolistic position. The high prices lead to enormous and unwarranted earnings.

4. The use of secret companies to kill competitors.

5. The compelling of purchasers to deal exclusively with the American Tobacco Company.

6. Espionage of competitors' business with other unfair practices in connection with the same.

SECTION 5

THE AMERICAN SUGAR REFINING COMPANY¹

Commanding Position of Company.—The initial organization of the sugar combination was the Sugar Refineries Company. From 1887 to 1891 this company purchased refineries in various parts of the country until finally twenty refineries were controlled. In 1891 this organization incorporated under the laws of the state of New Jersey as the American Sugar Refining Company, with a capital of \$50,000,000. Most of the plants purchased were abandoned,

¹ House of Representatives, 62nd Congress, 2nd Session. Report by Mr. Hardwick from the special committee to investigate the American Sugar Refining Company, and others.

all the refining being done in seven establishments. The American was engaged in the refining of cane sugar. When organized it controlled 75 per cent of that class of business. Shortly after the organization of the New Jersey corporation the Spreckles Company of the West united with the American, so that as early as 1892 the combination controlled 90 per cent of the sugar refining business of the country. From this time until 1898 the company had practical monopoly of the refining business in the United States. In 1898 Arbuckle Brothers entered the refining business, and for a time there was fierce competition; but the two companies got together in 1903 and the war ended.

Beginning with 1901 the American Company began to acquire an interest in the beet sugar companies and soon secured a large interest in that line of business.

In 1900 the American Sugar Company refined 67 per cent of the sugar. This proportion declined, until, in 1910, it refined only 42 per cent. But the company also owned stock or controlled a number of so-called independent companies. As a result, it is calculated that of the cane sugar refining business and beet sugar manufacture of the United States in that year the American Sugar Refining Company controlled 62 per cent.

Increase in Margins. — During the years in which the American Company has had approach to monopoly the margins for refining have been increased. During the four years prior to the formation of the Sugar Refinery Company, competition was severe and the average margin was 79.6 cents per hundred pounds. As soon as the refiners became well organized the margin was raised to \$1.25. At the time of the competition between the Havemeyer, the Spreckles, and the Arbuckle interests, it fell to between 70 and 75 cents, and in 1899 was as low as 50 cents. After the Arbuckle war closed, in 1901, it rose to \$1; but since 1905 has gradually declined, and while variable from time to time, in 1911 it was 89.2 cents.

Price of Raw Material. — There is complaint on the part of the sugar planters of Louisiana that the price for cane raw

sugar has been unduly depressed, being made 15 cents per hundred pounds lower at New Orleans than at New York; but doubtless at least a part of this difference is justified on the ground of the transportational advantages of New York. The sugar planters of the Hawaiian Islands, Porto Rico, and the Philippines are united and have been able to protect themselves. Similarly the prices paid to the farmers for beets have been satisfactory, there being no evidence of a combination between manufacturers to depress prices.

Overcapitalization. — The Sugar Refining Company when organized with a stock of \$50,000,000 was greatly overcapitalized. As other companies were united they were taken in at excessive values, and this led to a capitalization of \$90,000,000 by 1901. At least 50 per cent of the common stock is regarded as water, of which the insiders and promoters got a large portion.

Excessive Profits. — The preferred stock has paid 7 per cent and the common 9.4 per cent, an average of 8.2 for the whole stock issue, or at least 15 or 16 per cent on a fair valuation of the properties and business. The promoters of the organization and the manipulators have, with the exception of a single firm, sold these watered stocks to the public at a price of from \$120 to \$130 per share, so that at the present time a large part of the stock originally owned by fifty men is now in the possession of nineteen thousand people scattered all over the country, but largely located in New England and the North Atlantic states; of these nineteen thousand, ten thousand are women.

Evils Illustrated. — The American Sugar Refining Company has engaged in exceptionally objectionable practices.

(1) Through collusion of the officers of the sugar company and the officers of the government, duties were paid upon the basis of short weights. There were recovered from the company on account of these weighing frauds \$1,835,486. The secretary-treasurer of the American Sugar Refining Company and the general manager of the Brooklyn Refinery were convicted for participation in them.

(2) In the investigation of the weighing frauds illegalities

were also discovered under which the company had received drawbacks for exported syrup in excess of the amount justly due. The company settled the case with the government by the payment of \$700,000.

(3) The company has been convicted of taking rebates from a number of railways; and in consequence of those practices has been fined sums aggregating \$98,000.¹

(4) In addition to the above, the Congressional Committee finds strikingly developed several evils which they regard as characteristic of combinations. These are as follows:—

“*a.* Original overcapitalization of great industrial corporations resulting in increased cost of production, if a profit is to be made (as is always insisted upon) on the inflated capitalization, and higher prices of the product to the consuming public.

“*b.* The temptations of the persons who organize and control these large corporations to earn dividends on watered stock as soon as possible, so that such stock may be unloaded in the open markets upon the investing public. These dividends can rarely if ever be made without increasing prices to the consumer.

“*c.* Exploitation not only of the consuming public and of the investing public, as already set out, but also of the corporations themselves, by their officers, directors, and trustees, who do not hesitate to overburden the consumer, to deceive the investor, and to take advantage of the corporations that have trusted them, whenever it will line the pockets of such individual trustees.”

SECTION 6

THE MEAT PACKING INDUSTRY²

The Big Six. — Another industry in which a large part of the business has been concentrated with a few companies is

¹ Report of the Attorney-General, 1910, pp. 12-142, 1911, p. 21.

² Report of the Commissioner of Corporations on the Beef Industry. Washington Government Printing Office, 1905.

meat packing. The report of the Commissioner of Corporations is based upon facts available to the end of 1904, and the statements below should be considered of that date. The large packing companies are: Armour, Swift, Morris, National, Schwartzchild & Sulzberger, and Cudahy, frequently called the "Big Six." These control 50 per cent of the beef packing industry of the United States. Also these companies handle hogs, sheep, calves; and they do an extensive business in the purchase, storage, and sale of dairy and poultry products. The by-products of these companies are very important; some of these are hides, fat, and fertilizer. Each of the companies owns refrigerator lines for the transportation of products, and each does a general refrigerating business.

While the total business of the "Big Six" is only about 50 per cent of the whole, in the large cities of the East they do a much larger proportion; for instance, in New York 75 per cent, in Boston 85 per cent, in Philadelphia and Pittsburg 60 per cent. On the other hand, in cities west of Pittsburg, such as Cleveland, Cincinnati, and Indianapolis, not one half of the business belongs to these companies. Even in the small towns in New England these companies control about three fourths of the business; but in the Western states, in cities having populations of fifty thousand or less, they usually control less than half of the business.

The total capitalization of these companies in 1905 was \$93,000,000, which included \$5,000,000 in bonds. The gross business of the six companies was about \$700,000,000 per annum. With one exception these companies have largely grown up as a single corporation and have increased in size as business has grown, although to a certain extent the growth has been by accretion through the purchase of other companies. However, the National Packing Company is an exception to this, in that it was organized in 1903 through the consolidation of a number of existing companies. In 1906 there was comparatively little interownership among the large companies.

The big companies have either owned or are largely in-

Percentage
of business.

terested in a number of subsidiary packing companies and other companies, the business of which is allied to the packing business. Thus the Armour Company of Illinois owns or controls packing companies in New Jersey and Louisiana, car lines, fertilizer works, soap works, and glue works. Also owned or controlled by the company are the Armour Grain Company, the Armour Elevator Company, the Continental Fruit Express, and large interests in stockyards at Omaha, Fort Worth, Sioux City, St. Louis, and Kansas City. A similar but not identical line of business is owned or controlled by each of the other large companies. This is especially true of the Swift and the National Packing companies. Each of the large companies owns large packing houses in various cities; for instance, the Swift Illinois corporation has packing houses at Chicago, Omaha, Kansas City, East St. Louis, St. Joseph, St. Paul, and Fort Worth.

Enter allied
business.

Capitalization and Profits.—It is the opinion of the Commissioner of Corporations, at the time his report was rendered in 1906, that these companies are not largely overcapitalized. At any rate, they are in a very marked contrast with the American Tobacco Company, a business of much less importance; but in which the capitalization is between three and four times that of the six beef companies combined.

At the time the Commissioner made his report he did not regard the profits of the companies as excessive as compared with the business. Thus the profits of Swift in 1904 were placed at \$3,850,000, and this profit includes that on private cars, or 1.9 per cent on the entire transactions of the company. In no case, from 1902 to 1904, did the profits of the company exceed 2 per cent on the sales. However, if the profits be looked at from the point of view of capitalization, for Swift, \$3,850,000 would represent a profit of 11 per cent on the capitalization of \$35,000,000. The net profits of the Cudahy Company are reported to be \$927,969 in 1904, 1.8 per cent of the volume of the business. If the car lines be considered separately, the profits on this part of the business are greater, from 14 to 17 per cent on the capital invested on the basis of \$1000 per car.

If the price of cattle and the price at which dressed beef is sold are compared, it is found that there is a rough parallelism between the two. However, when the price of cattle rose, there was a tendency for the price of beef to rise to a somewhat greater extent, giving a larger margin of profit. This was especially marked in 1902.

The above statements refer to the wholesale prices of beef; the retail price is quite another matter. It is probable that the retailer has been able to secure a larger profit upon his sales than was possible before the combinations existed. This is not due altogether to the great combination, but to the tendency for retail men at a given point to coöperate, this tendency being synchronous with the general movement in recent years toward combination of the men engaged in the same business in the United States.

Principles Illustrated.— Concentration in the packing industry has given various economic advantages, among which are the following: The returns from the by-products are a considerable portion of the entire business, the value being roughly 25 per cent of the total. The small slaughterhouse is at a great disadvantage in respect to these by-products; a large abattoir may save everything. A second advantage of concentration is the location of abattoirs by the same company in different cities. Through this arrangement cross freights are saved. The beef cattle for the packing house at a given city are acquired from the territory contiguous to that city. The demands for beef in that territory are supplied by that plant. Furthermore, for the eastern part of the United States there is an advantage in that the beef cattle are killed near the source and only the dressed product shipped to the market, thus reducing greatly the amount of freight to be handled, since the weight of the dressed beef is only from 54 to 57 per cent of the weight of the live cattle.

Economic
gains.

There can be little doubt that, since the organization of these six great beef companies and their combination with affiliated companies in controlling the stockyards, it has become more difficult for an additional great company to

enter the business. The large interstate business of the country is in very great measure controlled by the "Big Six"; the local business is still largely with the small company.

In 1905 an indictment was brought against a considerable number of the officers of the "Big Six," charging that they were in combination and in restraint of trade and that they had "an agreement, understanding, and arrangement among themselves whereby they fixed, regulated, and controlled prices."¹ The trial of those charged under the indictment did not take place until in 1912. On March 26, the long contest was closed by the jury finding that the officers of these companies were not guilty under the criminal section of the Sherman act against conspiracy in restraint of trade.

SECTION 7

THE LUMBER INDUSTRY:

In the United States concentration of the ownership of standing timber has progressed far.

The General Situation. — "Certain basic facts in the lumber industry are as follows:—

"First. The entire remaining supply of standing timber in continental United States (excluding Alaska) is now about two hundred and eighty billion board feet, of which about twenty-two hundred billion is privately owned. (The unit 'board foot' is a foot square and an inch thick.)

"Second. There has come about, and there is still proceeding, a very remarkable concentration in the ownership of this remaining standing timber in the hands of a comparatively few interests. This concentration results chiefly from the speculative holding of timber lands for future profit, primarily made possible by our long-standing public land policy.

"Third. From the time when the vast majority of our

¹ United States of America *v.* Louis F. Swift *et al.*, Decision, p. 2.

² Summary of Report of the Commissioner of Corporations on the Lumber Industry, Part I, "Standing Timber."

Timber
supply.

Concentra-
tion of
ownership.

present timber supply left the hands of the one great original owner, the United States, till the present there has been an enormous increase in the value of standing timber. This increase has varied greatly, according to local conditions, but practically everywhere it has been manyfold — sixfold, tenfold, twentyfold, thirtyfold, and in some cases fiftyfold. The present commercial value of the privately owned standing timber in the country, not including the value of the land, is estimated (though in the nature of the case such an estimate must be very rough) as at least \$6,000,000,000.

Increase
in value.

“These conditions must be considered in the light of the further facts that our standing timber is a natural resource created almost exclusively by nature; that where it has not been destroyed it is substantially in the same condition as when it left the hands of the government; that human effort, or the private owners that hold and have left it, have added practically nothing to it; that while a certain amount of reforestation is possible, standing timber is a resource in the main quite similar to our ore and coal measures; that our present annual consumption of timber is about three times the annual growth, and the demand is steadily increasing; that speculative holding of timber land for future rise in no way improves the character of the timber and does not give such public service as is given by those who acquire lands for actual present use and improvement. While the profits of speculative timber holding have been enormous, as will be hereafter shown, the risks of such holding and the services rendered by the holders are peculiarly small in comparison with those profits.

The un-
earned
increment.

“These great facts have brought about certain results of tremendous significance from the standpoint of the public welfare. The timber supply is a diminishing natural resource. Its increasing concentration into a comparatively few strong hands has conferred upon those strong holders a vast power over the timber industry and over prices therein; and has itself greatly accelerated the enormous rise in timber values.”

Rise in
prices and
concentra-
tion.

The lumber industry is one in which the units of manufacture are not of extremely large size, because the material

is so heavy as compared with its value that it cannot be transported a great distance advantageously. The logs, by stream in favored localities and by railroad in others, must be transported to the mill. Where the logs float downstream the expense is not great. For the lumber so located that it must be transported by rail the cost increases more rapidly with distance, so that there is a limit beyond which it is not advantageous from the point of view of economic efficiency to transport logs, and this fixes the size of the mill to that adapted to the work of sawing the logs for the tributary area. "The largest sawmill in the country cuts less than one half of one per cent of the total annual output of lumber." Since the control of the market is not readily secured by concentration of sawmills, it has been secured by the concentration of the ownership of standing timber.

Concentrated Ownership of Timber. — Of the merchantable saw timber of the United States 20 per cent is still owned by the government, leaving 80 per cent in private hands. Of the vast amount of timber in private holdings the concentration of ownership is shown by the following table: —

TABLE 46. CONCENTRATION OF TIMBER OWNERSHIP BY GROUPS, SHOWN CUMULATIVELY, IN ENTIRE INVESTIGATION AREA

	NUMBER OF HOLDERS	AMOUNT OF TIMBER OWNED IN BILLIONS OF FEET	PER CENT OF TOTAL
Total	—	1747.0	100.0
Group 1	3	237.5	13.6
Groups 1-2	8	339.5	19.4
Groups 1-3	22	459.0	26.2
Groups 1-4	48	574.3	32.8
Groups 1-5	90	690.5	39.5
Groups 1-6	195	839.7	48.0
Groups 1-7	385	972.1	55.6
Groups 1-8	658	1068.5	61.1
Groups 1-9	1147	1153.3	66.0
Groups 1-10	1802	1208.8	69.2
Group 11	—	538.2	30.8

Limit in
size of
mill.

Four fifths
in private
ownership.

“From this table it will be seen that three holdings include no less than 237.5 billion feet, or nearly 11 per cent of the privately owned timber in the entire country, and over 13.5 per cent of the privately owned timber in the investigation area. These three holders are the Southern Pacific Company, the Weyerhaeuser Timber Company, and the Northern Pacific Railway Company. Five other holders ranking next in importance own in the investigation area an aggregate of 102 billion feet, or 4.6 per cent of the total privately owned timber of the country and 5.8 per cent of that in the investigation area. Thus the eight large holders together own approximately 340 billion feet of timber, or 15.4 per cent of the total privately owned timber of the country and 19.4 per cent of that in the investigation area.

The big three.

“Twenty-two holders own 26.2 per cent of all the timber in the investigation area; 195 holders own 48 per cent. Stated in another way, more than one eighth of the total timber in the investigation area (this representing 80 per cent of the total privately owned timber of the United States) is owned by only 3 holders; more than one fourth is owned by only 22 holders. Almost one half is owned by 195 holders.

“The most marked concentration is in the hands of the comparatively few large holders of the upper groups; the lower groups control a much less important percentage. Thus, while the 385 holders in groups 1 to 7, inclusive, control 55.6 per cent of the timber in the investigation area, the 273 holders in group 8 control only 5.5 per cent, the 489 holders in group 9 only 4.9 per cent, and the 655 holders in group 10 only 3.2 per cent.

“Furthermore, these 10 groups, 1802 holdings, embrace nearly 70 per cent of the total timber in the investigation area, while group 11, the remaining holdings, aggregating unnumbered thousands, have in all only 538.2 billion feet, or 30.8 per cent of the total.”

An organization is regarded as holding a property when it has more than one half of the stock of a corporation. Even the above statements do not indicate the real extent of concentration of ownership, since many great timber holders

have stock in several companies. Further, where in great holdings of timber small holdings are blocked in, they are practically controlled by the large holders, since the owners of the smaller blocks can only sell to the surrounding holders or get the timber out through coöperation with such holders.

Of the three great companies, the Southern Pacific is first, the Weyerhaeuser is second, and the Northern Pacific is third, the holdings of the three together constituting 23.5 per cent of all the privately owned timber in the five states of the Pacific Northwest. In order to appreciate the magnitudes of the Southern Pacific holdings it may be said that the timber of this company "stretches practically all the way from Portland, Ore., to Sacramento, Calif., a distance of 682 miles. The running time of the fastest train between these two points is thirty-one hours; yet during all that time the traveler is passing through lands a large proportion of which for thirty miles on each side of him belongs to the corporation over whose track he is riding, and in almost the entire strip, 60 miles wide and 682 miles long, this corporation is the dominating owner of both timber and land."

The holdings of these three great companies are based upon government grants. That of the Southern Pacific was acquired almost exclusively by government gift, and the Weyerhaeuser holdings were largely purchased from the government-granted lands of the Northern Pacific. The original vast grants were made more valuable by the law which permitted the exchange of lands in the forest reserves and parks for other lands. Much of the land released in the Pacific forest reserve and Mount Ranier National Park had comparatively little timber, and in exchange the great companies selected heavily timbered land.

While the concentration in timber holding is great for the country as a whole, it is still greater in single regions. At the present time the largest quantity of the most valuable timber is in the Pacific Northwest. Concentration in this region is shown by the following table:—

Enormous
holdings in
Pacific
states.

The timber
given away.

TABLE 47. CONCENTRATION OF TIMBER OWNERSHIP BY GROUPS, SHOWN CUMULATIVELY IN PACIFIC NORTHWEST

	NUMBER OF HOLDERS	AMOUNT OF TIMBER OWNED IN BILLIONS OF FEET	PER CENT OF TOTAL
Total	—	1013.0	100.0
Group 1	3	237.5	23.5
Groups 1-2 . . .	8	338.9	33.5
Groups 1-3 . . .	20	436.3	43.1
Groups 1-4 . . .	38	507.3	50.1
Groups 1-5 . . .	64	571.9	56.5
Groups 1-6 . . .	131	663.8	65.6
Groups 1-7 . . .	217	723.0	71.4
Groups 1-8 . . .	313	757.3	74.8
Groups 1-9 . . .	489	789.1	77.9
Groups 1-10 . .	711	807.4	79.7
Group 11 . . .	—	205.6	20.3

“The pronounced concentration of timber ownership in the Pacific Northwest is at once apparent from this table. The 3 largest companies own over 23 per cent of the total, or almost one fourth, while 5 more own 10 per cent, these 8 holders having a little more than a third of the total for this region. The next 12 holders own over 9 per cent, giving the 20 principal holders 43 per cent of the total. The next 18 own 7 per cent; thus no less than 50 per cent of the total privately owned timber in this vast region is in the hands of 38 holders. The next 6 groups, comprising 673 holders, together own less than 30 per cent of the total.”

Concentration of ownership in the southern pine belt and in the lake region, while great, is not so far advanced as in the Pacific Northwest. In all regions the concentration is greater for the high class timber, such as fir, pine, and cypress, than it is for the less valuable hard wood.

Rising Prices.—Since timber is a natural resource, which is diminishing in quantity, it is inevitable that in anticipation of a lack of supply, the prices for timber are continually

Multiplication of prices.

rising; for timber is being cut at the present time about three times as fast as it is renewed. However, the enhancement of price has been greatly accelerated because of the concentration in ownership. Many illustrations could be given as showing the increase in the value of timber. For instance, upon the average for Minnesota, the state has received from its pine lands a steadily increasing amount. In 1880, the average price per thousand feet was \$1.47; in 1890, \$2.25; in 1900, \$5.17; and in 1909, \$7.53, or more than five times the price in 1880. Other illustrations of the rise in price during the past twenty years are as follows: from \$5 to \$30 an acre, \$7 to \$40, \$20 to \$150, \$1 to \$13, \$4 to \$140, \$1 to \$50.

Our heritage squandered.

The government gave its lands as bonuses to railroads, canals, and wagon roads, or received \$1.25 or \$2.50 per acre for the same. In short, our reckless liberality in giving away our natural resources and our defective land laws were the chief underlying causes which have led to the extraordinary concentration in ownership of one of the great natural resources of the country, the timber.

SECTION 8

THE WATER POWERS¹

The water powers of the country have in recent years become of rapidly increasing importance. This has followed as a consequence of the improvements in the electrical transmission of power. It is now possible to transmit power economically from a given center to a distance of two hundred miles and over an area of one hundred thousand square miles.

The Amount and Distribution.—The minimum potential water power of the United States is estimated at 32,083,000 h.p., and the maximum at 61,678,000 h.p. Assuming an

¹ Report of Commissioner of Corporations on Water Power Development in the United States. Washington Government Printing Office, 1912, p. 220. "Conservation of Natural Resources in the United States," C. R. Van Hise, pp. 118-161, The Macmillan Company, New York, 1910.

efficiency of 75 per cent for this potential horse power, the water powers would give a minimum effective energy of 26,736,000 h.p., and a maximum of 51,398,000 h.p. By minimum horse power is meant the average available for the two weeks of lowest water during a period of seven years; by the maximum is meant that which is available during a period of not less than six months each year.

From 1905 to 1907 the amount of mechanical energy used in the United States was approximately 23,000,000 h.p., of which 3,432,000 h.p., or 15 per cent, was produced by water, the remainder being developed by steam and internal combustion engines. In June, 1911, the developed water power installations, greater than 1000 each, amounted to 4,016,127 h.p., and that in units less than 1000 h.p., to 2,000,000 h.p., making a total in round numbers of 6,000,000 h.p.

Of the water power installations nearly 50 per cent of those developed for sale and for public service corporations was located in five states, as shown by Table 48.

TABLE 48. SHOWING COMMERCIAL WATER POWER IN FIVE STATES

	PER CENT
California	14
New York	13
Washington	10
Pennsylvania	6
South Carolina	5
Total	48

The water power which is used for manufacturing is even more concentrated than the "commercial" water power, as is shown by Table 49.

TABLE 49. WATER POWER IN A NUMBER OF STATES EMPLOYED IN MANUFACTURE

	PER CENT
New York	30
New England States	36
Minnesota and Wisconsin	17
South Carolina	5
Total	88

Concentration of Ownership.—There are strong economic forces which tend to concentrate the ownership of water powers.

The demand for energy is very unequally distributed, both as to time and place. There are variations in the amount of power needed in winter and in summer; there are even greater variations in the demands during a given day. If, for any district, the different water powers are coupled up, a greater amount of energy can be utilized than if each be managed separately. Consequently the most efficient use of water power is gained by "gathering into a single unit all the power available for a given market or group of markets using the same system of transmission lines." Another reason for concentration is that the limit of two hundred miles for economic transmission of power makes it impossible for the water powers of one district to compete with those of another. Therefore, if all the water powers of a single district or a large portion of them can be acquired by a single concern, there will be monopoly in that district. Concentration has also been promoted by the close connection between the manufacturers of hydro-electric machinery and the water power companies, and by a union of these with financial concerns especially interested in these lines of business.

In consequence of the foregoing factors, in each of the principal regions in which water powers are developed on a large scale, the control of the greater part of the same is by one or two companies.

"In California the bulk of the power produced in the northern half of the state is controlled by a single interest, and that in the southern half by only two companies. In Montana two companies control 96 per cent of all the developed power of the state; and in Washington a single interest controls the power situation in the Puget Sound region, while another interest, more or less closely affiliated with it, controls the developed power elsewhere in the state. All the developed power in the vicinity of Denver, Colo., and nearly 70 per cent of the total developed power in that state,

Reasons for
concentration.

is controlled by one interest. In South Carolina one corporation owns 75 per cent of the developed commercial power, while in North Carolina 45 per cent of such power, developed and under construction, is controlled by a single interest. One group of interests practically controls 58 per cent of all the commercial power, developed and under construction, in Georgia. In the Lower Peninsula of Michigan a single group owns 73 per cent of all such power. The great development at Niagara Falls on the American side is controlled by only two companies."

Strong
position of
great
companies.

Not only is there concentration in control of districts, but the same companies have large interest in water powers in different districts.

"The General Electric interests control the water power situation in large portions of Washington, Oregon, Colorado, Montana, and elsewhere. The Stone and Webster interests exercise control (based largely, however, on management rather than ownership) in localities in Washington, Iowa, and Georgia. The Pacific Gas and Electric Co., practically dominates the power situation in a large number of localities in the northern half of California. The Southern Power Co., controls the power situation in South Carolina and has a strong foothold in North Carolina. The S. Morgan Smith interests dominate the power situation in the vicinity of Atlanta, Ga. The Telluride Power Co. controls absolutely a large territory in Utah and Idaho. The Commonwealth Power, Railway, and Light Co., which is a part of the Clark-Foote-Hodenpyl-Walbridge interests, dominates the power situation in the Lower Peninsula of Michigan. The Gould interests control the best of the available water power sites in the vicinity of Richmond, Va."

Also there is a very close relation between the water power companies and the public service corporations, since the largest use of the power is for street railways, electric lighting of cities, etc.

"In the country as a whole, water power companies, or companies affiliated with them, own or control and operate street railways in no less than 111 cities and towns in the

United States, electric lighting plants in 669 cities and towns, and gas plants in 113 cities and towns. These companies, moreover, supply power to municipal lighting plants in a considerable number of cities and towns. Many of these are among the most important municipalities in the states involved. Furthermore, in many cities and towns in the United States all the public utilities—street railways, electric lighting and gas plants—are controlled by water power interests.”

Finally there is very close interrelation of the large water power interests through common financial houses, common directorates, and common ownership of public utilities.

The use of the 6,000,000 h.p., now developed, saves at least 33,000,000 tons of coal. If the amount of water power used could be made fourfold, this would save annually more than 130,000,000 tons of coal. So great a saving of a fundamental resource would mean much to the future of the nation. It is clear, therefore, that the greatest “waste of water power is its non-use.” But we must recognize that its rapid development can only be accomplished by unification of storage, coupling up, and coöperation with public utilities corporations. Thus water powers probably furnish the best illustration of the tendency toward concentration of a natural resource limited in quantity.

Public Control.—The prices charged for water power at present are substantially those that the traffic will bear. If the prices are made too high, public utilities and manufactories using water power will not be rapidly developed. It is obvious that the price for water power cannot be made higher than for equivalent energy produced by coal; therefore in the part of the East where coal is cheap, water-developed energy is relatively low. In localities where coal is expensive, as in the Pacific Northwest, the traffic will bear more; and the price of water-created energy is placed very high by the controlling companies, in some instances as high as \$40 per horse power per annum to the large consumers.

The amount of water in the United States even when fully

Communi-
nity of
interests.

Saving
of coal.

Price of
water-
created
energy.

developed will be far short of the energy which in the future will be required for the industries and public utilities. This is evident by the fact that there is already in use almost as much energy as the entire minimum horse power available for the United States. For the great, densely settled regions, it will not be possible to gain through the use of water more than a relatively small fraction of the energy needed. Hence there is a sound reason for not placing the price of energy derived from water on the market at a lower rate than that derived from the consumption of coal, otherwise those who are obliged to obtain their power from coal would be at a disadvantage.

Since, however, energy derived from water power is upon the whole very cheaply produced, requiring only a capital investment of from \$40 to \$300 per horse power for installations of moderate size, and the expense of the operation is very low, it is clear that the profits from the development of water power upon the average are large. The public should gain the advantage of this natural source of power which will be available in perpetuity. In all cases in which the public still retains the right to the energy of falling water, some plan should be devised which will give to the public a large part of the difference between the cost of producing energy by water and of producing an equivalent amount of energy by coal. Where the government or the states retain the water power sites this will be easily accomplished through a lease or rental system.

Public
should gain
profits.

Fortunately the United States government still owns the land adjacent to many of the streams in the western part of the United States, and has all the water rights for a large number of water power sites. Some of the states, illustrated by Illinois and New York, also own some of the water power there located. A number of municipalities own water powers, among which Los Angeles has first place, controlling more than 100,000 h.p.; and Chicago, Augusta, Ga., Seattle, and Tacoma, are very important, each controlling from 12,000 to 76,000 h.p. In several of the Western states, illustrated by Colorado, California, North Dakota, Wash-

ington, Wyoming, Idaho, and Oregon, the use of water for all purposes has been declared to be a public use; and in some of them the water in its entirety has been declared to belong to the public.

Future
importance
of water
powers.

Whatever public rights to the use of water for the development of energy exist, they should be jealously guarded; for in the distant future, when the coal is gone, the power of falling water is the only source of cheap energy of which we have knowledge at present. When that time comes, the owners of the water powers will control the industries of the nation. The energy from falling water so far as publicly owned or controlled should be sold for a limited term of years at a rate sufficiently low to lead to prompt development, and thus displace as much coal as possible. A large part of the margin between the selling price and the cost of development should go to the public.

In those states in which the energy of falling water has been given through legislative enactment or judicial decision to the riparian owners, the problem of water power control is more difficult. In such instances one way to secure control by the public would be to condemn privately owned water powers, and after such condemnation have them operated as public utilities.

CHAPTER III

THE LAWS REGARDING COÖPERATION¹

SECTION 1

ENGLAND

IN England, in the time of Edward VI, a very strict statute was passed by Parliament against "forestalling, enhancing, regrating, and engrossing." Without going into details the things prohibited by these laws were roughly as follows: Forestalling was the offense of going out on the road and buying merchandise which was coming to the market, with the intention of selling at a higher price upon its arrival. This applied especially to wheat, or as it is called in England, corn. Enhancing defines itself; it applied to buying a product, one of the necessities of life, with the intention of selling again at an increased price. Regrating was the offense of going into the market and buying products in a greater quantity than needed for consumption with the intention of selling in the same market at a higher price. Engrossing was buying corn growing, or any other corn, butter, cheese, fish, or other dead victual, with intent to sell the same again. Under these old laws transactions were prohibited which raised the price of an essential article. Many of the regulations went so far as to fix prices.

Early rigid statutes.

While at this time these offenses were made statutory, they apparently had been offenses against the common law at a much earlier date. Indeed, so far as we can ascertain, the common law in the Middle Ages was very strict against combinations in restraint of trade, as well as against regrating,

¹For full information concerning this part of the subject, see Eddy on Combinations, Callaghan & Co., 1901; Noyes on Intercorporate Relations, Little, Brown & Co., 1902; Wyman on Control of the Market, Moffat, Yard & Co., 1911, and Jenks Report of the Industrial Commission, Vol. II.

forestalling, and engrossing. Since the statutes were found to have a tendency to prevent free trade and to enhance the price of essential commodities, they were repealed during the reign of George III. Notwithstanding this fact some of the judges held that the common law against these offenses still existed and penalties were imposed for them. In order to clarify the situation, in 1844, Parliament definitely abolished the offenses of badgering, engrossing, forestalling, and regrating, for Great Britain as a whole, and repealed a large number of acts which had been passed prohibiting restraint of trade. The repealed acts included those which required foods to be sold at reasonable prices, which allowed justices of the peace to fix the rate of wages of laborers, various statutes fixing the prices of different articles, and finally acts which prevented men from engaging in allied lines of business, such as not permitting "an hostler to make horse bread," and prohibiting a butcher from being a grazer. Thus, at one stroke Parliament repealed the statute laws against restraint of trade. This repealing act guarded against fraudulent or unfair practices by adding the following clause:—

"Provided always and be it enacted, that nothing in this act contained shall be construed to apply to the offense of knowingly and fraudulently spreading or conspiring to spread any false rumor, with intent to enhance or decry the price of any goods or merchandise, or to the offense of preventing or endeavoring to prevent by force or threats any goods or wares, or merchandise being brought to any fair or market, but that every such offense may be punished as if this act had not been made."

Combination in trade may be defined as the coöperation of two or more persons, partnerships, or corporations to achieve a given result. According to Eddy¹ the purposes of combination are to reduce the cost of producing and marketing products, to control prices, and to discourage and if possible to suppress, competition. Since 1844, the law in England has permitted combination in all commodities including the essentials of life even if the purpose of the same were to

¹ Eddy on Combinations, Vol. I, Sections 167, 176, 184.

enhance the price. Any combination is permitted which does not involve immoral, unlawful, and oppressive acts, is not contrary to public policy, and does not go to the extent of monopoly. Magnitude alone does not make a combination illegal; but monopoly is prohibited in order to retain competition. It is realized in England that "competition has its disadvantages as well as its advantages, and may be the death as well as the life of trade."¹

Law permits combination.

In England also in early times the common law restrictions were very severe upon *contracts* in restraint of trade. By contract in restraint of trade is meant any contract "whereby any party binds himself to not follow some particular occupation, trade, calling, or profession, or engage in some particular business or enterprise for a period within a particular territory."² Gradually the rigidity of the early rule forbidding contracts in restraint of trade was modified, so that in England at the present time whether contracts in restraint of trade are lawful is dependent upon their reasonableness. They may be sustained even if they be indefinite, both as to time and place; but such contracts to be lawful are to be supported by a consideration, are to be essential to the protection of the legitimate interest of the contractees, and must be reasonable.³

Early limitations on contracts removed.

The above statement shows that at the present time the laws have so developed in England that there is freedom to combine in trade to any extent, provided that the combination is not immoral, unlawful, or oppressive, is not contrary to public policy, and is not a monopoly. Thus there is freedom to combine in trade as well as freedom to compete. This great policy is in accordance with the principle of *laissez faire* which for many years has had such a vast influence in England. It is a very radical departure from the early decisions under the common law and the policies of the old statutes. As we shall see, freedom for combination as well as freedom for competition has had a very far-reaching influence upon the development of trade in the United Kingdom.

Freedom to combine and freedom to compete.

¹ Eddy on Combinations, Vol. I, Section 308.

² *Ibid.*, Section 688.

³ *Ibid.*, Section 713.

SECTION 2

THE UNITED STATES

The laws of England regarding trade, both common and statute, were brought over to this country; and here they have gone through the same stages of development as in Great Britain.

The statute laws, originally severe, were gradually ameliorated and finally wiped out. The common law regarding contracts and combination in restraint of trade went through the same stages of development as in England, until finally they permitted combination and contracts which were reasonable. The purposes of contracts may be to restrain trade, to suppress competition, or to control the market. It has been held that contracts in restraint of trade which go to the extent of the entire United States for an unlimited time are unreasonable. Contracts in partial restraint of trade, such as not to use a trade in a particular place for a definite term, if founded on a good consideration and for a proper and useful purpose, were valid; and they were so even if an entire state was comprised by the contract.

The limits of the combinations which were permitted are given in general terms by Noyes¹ as follows:—

“(1) Any combination of corporations or individuals the object of which is, or the necessary or natural consequence of the operation of which will be, the control of the market for a useful commodity, is against public policy and unlawful.

“(2) Any combination of quasi-public corporations, the object of which is, or the necessary or natural consequence of the operation of which will be, the increase of charges beyond reasonable rates, or the curtailment of facilities afforded the public, is against public policy and unlawful.”

Under the above principles the following have been held to be lawful, viz., combinations which had for their object maintenance of a fair price, union of rival manufacturers,

¹ Noyes on Intercorporate Relations, Section 352.

Partial con-
tracts in
restraint
allowed.

Principles
limiting
combina-
tions.

agreements in selling price or division of profits, and exclusive trade agreements. Even if such combinations tended to raise the price of a commodity, they were lawful. Also, agreements to remove a rival from the field are legal unless they result in monopoly.¹

Extent of
combina-
tion allowed.

From actual cases which have been considered by the courts,² Eddy gives the following statement regarding the nature of combinations which were permitted before the statutes of recent years were passed:—

“Combination to control competition is legal where oppressive monopoly is not intended.”— “Combination by consolidation of competing companies, by the formation of a new corporation to take over the assets of the competing companies, the object being to diminish competition, is legal.”— “Combination among individuals by the formation of a partnership to handle produce or merchandise and control competition in a given market is legal where no fraud or deception is practiced.”— “Combinations among competitors, the object of which is to realise a fair price for the goods manufactured and sold, do not contravene any rule of public policy, even though they operate in some respects as in restraint of trade.”— “Combination of all competitors to control trade and prices by formation of new corporation to take entire product and act as exclusive selling agent is legal.”— “Combination by voluntary association among competitors for the purpose of suppressing ruinous competition and establishing better prices through the appointment of an exclusive selling agent and a supervisory committee, held legal.”— “Combination to prevent competition by subsidizing competitor is legal.”— “Combination to suppress competition by means of contracts with independent manufacturers for their entire products is not illegal so long as there is not a conspiracy to monopolize the market.”— “Combination of workmen for protection and to increase wages is legal; so also is the combination of common carriers to guard against undue competition and the reducing of

Illustrations
of combina-
tions.

¹ Eddy on Combinations, Vol. I, pp. 124-127.

² *Ibid.*, Chapter 7, pp. 131-198.

freights below a fair compensation." — "Combinations between individuals or firms for the regulation of prices, and of competition in business, are not monopolies, and are not unlawful as in restraint of trade, so long as they are reasonable and do not include all of a commodity or trade, or create such restrictions as to materially affect freedom of commerce." — "An agreement between a number of persons to act concertedly in fixing prices at which they will sell a particular commodity in a particular city is not illegal as being in restraint of trade unless it appears that they have a monopoly of that commodity." — "I know of no rule of law ever having existed which prohibited a certain number (not all) of the producers of a staple commodity agreeing not to sell below a certain price."¹

The general principle regarding contracts in restraint of trade was admirably stated by Justice Guthrie as follows:² "That all contracts in partial restraint of trade are not void as against public policy is too well settled to be gainsaid; while, on the other hand, it is as fully established, as a general rule, that contracts in general restraint of trade are against public policy and, therefore, absolutely void."

While combinations and contracts in restraint of trade are permitted in England to a large degree and were permitted in America to a similar extent under the common law, in both countries it is a fundamental principle that there must be freedom for fair competition. Contracts must not be tainted with fraud, against public policy, or contrary to the statutes. All claims on the part of any person or partnership to have the exclusive right or monopoly in any business have universally been denied the protection of the law, whether such exclusive privilege was claimed as a general right or because of a contract. Moreover, freedom of competition under the common law has not been allowed to go to the point of establishing business to injure a person through a malicious purpose, nor so far as to allow the breaking of one contract to make another on more advantageous terms. If

¹ Eddy on Combinations, Vol. I, Sections 270, 271, 272, 276, 277, 278, 280, 281, 282, 313, 315, and 316.

² 35 Ohio State, 666.

fraud be used in competition, it is illegal; as, for instance, the misleading use of a firm name. A company manufacturing watches in Waltham was not allowed to call the same Waltham watches, since this was a well-known manufacture of a previously established company. Libelous statements may not be used to secure business. Intimidation or coercion to secure trade or to compel exclusive employment of a certain class, such as the members of a business, has not the protection of the common law.

Since by reference to Eddy the very numerous cases in which combinations in restraint of trade have been permitted in this country under common law may be easily found, they are not here repeated. There will be mentioned a few cases showing how far contracts in restraint of trade have been permitted.

In New Jersey a contract not to manufacture anywhere in the United States except in Nevada and Arizona for fifty years was held to be valid so far as the state of New Jersey was concerned.¹ In New York a contract not to engage in the manufacture of matches for ninety-nine years except in the state of Nevada and the territory of Montana was held to be partial and not general restraint of trade, and therefore valid.² In another case in that state it was held that a contract under which a steamboat company paid another company not to run a competing line of steamboats was valid on the ground that it may be a benefit to keep competition from becoming too strong.³

While it is clear under the common law in this country that there was great liberality regarding combination and contracts in restraint of trade, when such contracts and combinations affected partnerships or corporations, they were uniformly declared to be illegal.⁴

Here falls the famous case of the *People v. the North River Sugar Refining Company* under which the shares of the capital stock of the constituent companies were transferred to a board of trustees. This was the case in which

¹ 56 N. J. Eq. 680.

² 106 N. Y. 473.

³ 110 N. Y. 519.

⁴ 121 Ill. 530; 58 S. W. Rep. 853; 86 Tenn. 598.

the trust was first brought before the court. Speaking of the trust, Justice Barrett of the circuit court says that the acts of this trust are unlawful for two reasons: "1. They constitute the corporation a partner and a corporation is not allowed by law to enter into partnership. 2. Any combination, the tendency of which is to prevent competition in its broad and general sense and to control, and thus at will enhance prices to the detriment of the public, is a legal monopoly, and is against public interest." Justice Finch, of the court of appeals, declared "that defendant corporation has violated its charter and failed in the performance of its corporate duties, and that in respects so material and important as to justify a judgment of dissolution."¹

Under this principle the Standard Oil Trust of Ohio was declared to be illegal.² In this case the action of the corporation was held to be *ultra vires*, against public policy, and therefore ground for the forfeiture of the charters of the offending companies. Apparently in this decision was also the element of monopoly since Justice Minshall declared that under the trust form of combination "by the invariable laws of human nature, competition will be excluded and prices controlled in the interest of those connected with the combination or trust."

Numerous cases could be cited which have declared combinations which go to the extent of monopoly to be contrary to public policy as intending to control the market, but the principle is so well known that details will not be given.³

SECTION 3

THE SHERMAN ANTITRUST LAW⁴

The law as above described in Section 2 for this country was a natural development under which the law conforms to the conditions of trade. Large liberty was permitted.

¹ 121 N. Y. 582.

² 49 Ohio State 131, 1892.

³ 139 N. Y. 105; 145 N. Y. 267; 47 Ohio 320; 111 Pa. 473; 77 Mich. 632.

⁴ For the full text of the law see Appendix I. Many discussions of the Sherman antitrust act and its influence on law and trade have been published. Some of the more enlightening are the following: "The Federal

Suddenly, in 1890, a new policy was introduced by statute law, the principle of which was to go back to severe restrictions regarding trade, not so severe as in the Middle Ages in England, but far in that direction. This policy was inaugurated by the Sherman antitrust law. Combinations of the kind above mentioned and which before had been regarded as legitimate were by congressional act for interstate commerce declared to be unlawful. The Sherman act clearly stated that restraint of trade in any degree is illegal. How marked is the contrast between this law and the previously existing common law is shown by the following summary of its important provisions.

Sudden reversal of policy.

Provisions of Sherman act.

Sections 1 and 3 of the Sherman act make "every contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade or commerce" illegal. This provision applies as among the several states and territories, the District of Columbia, and foreign countries; as between persons, corporations, and associations engaged in interstate commerce; and as between one of any of these groups with any member of another group, except contracts between two foreign countries.

Section 2 provides that "every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several states, or with foreign countries, shall be deemed guilty of a misdemeanor." Thus the law forbids both restraint of trade and monopoly or attempt at monopoly. Violation of any of the above provisions of the act is made a misdemeanor and is punishable by a fine not exceeding \$5000, or imprisonment not exceeding one year, or by both.

Section 7 provides that any person who is "injured in

Antitrust Act," Robert L. Raymond, *Harvard Law Review*, Vol. XXIII, pp. 353-379; "The Standard Oil and Tobacco Cases," Robert L. Raymond, *Harvard Law Review*, Vol. XXV, pp. 31-58; "Antitrust Legislation and Litigation," annual address before the American Bar Association, Boston, 1911, by William B. Hornblower; "Recent Interpretation of the Sherman Act," George W. Wickersham, *Michigan Law Review*, Vol. X, pp. 1-25, Hearings, Senate Interstate Commerce Committee, Albert H. Walker, Part XIX, pp. 1537-1571, and Victor Morawetz, *Ibid.*, pp. 1629-1642.

his business or property by any other person or corporation by reason of anything forbidden or declared to be unlawful by this act . . . shall recover threefold the damages by him sustained and the cost of suit including reasonable attorney's fee."

Other sections of the Sherman law provide for instituting proceedings by the Attorney-General of the United States and the conduct of cases by the court.

Amendments to the Sherman law have extended the inhibition of combinations to importers, and have given cases which arise under the law precedence over others. While the act is called the Sherman antitrust law because introduced by Senator Sherman, it was more largely written by Senator Edmunds than any other one man, although some clauses were based upon drafts by Senator Sherman and other clauses were written by Senators Hoar and Ingalls.¹

The Sherman antitrust act has now been on the statute books for twenty-two years, and many cases have been decided under it. Some of the early decisions were of a kind which gave little promise of the effectiveness of the law.

Thus in 1890 some seventy distilleries united, capable of producing 77,000,000 gallons of whisky. Their output was three fourths of that of the United States. The combination approached if it did not reach monopoly. The distilleries were located in different states. The products were shipped into states other than those in which the distilleries were located. It was held by the court that these acts did not constitute an unlawful agreement under the antitrust act.² Again it was held to be a legal act for two or more traders to agree among themselves that they will not deal with those who purchase goods of any designated traders in the same business.³ An agreement to make exclusive purchases from a dealer with the provision that this would entitle the purchaser to a rebate if the agreement was carried out, was held not to violate the law.⁴

When dealers in lumber in different towns and cities of

¹ Hearings, Senate Interstate Commerce Committee, XXVI, pp. 2422-2431.

² 51 Fed. 205.

³ 55 Fed. 851.

⁴ 51 Fed. 213.

the states of Wisconsin, Minnesota, Iowa, Illinois, and Missouri agreed to raise the price of lumber fifty cents per thousand feet in advance of the regular market price of pine lumber, it was held that the agreement did not necessarily raise the price generally and that the combination to come under the statute must be such that the members of the combination through the combination controlled the price of the entire output.¹ In other words, if the combination was not such as to introduce the element of monopoly, it was not illegal.

Early decision disconcerting.

Even more important than this case was that of the American Sugar Refining Company. This corporation, organized under the laws of New Jersey, secured control of four Philadelphia refineries, thus gaining practical monopoly of the business. It was held by the court that monopoly in the *manufacture* of an article necessary to life is not interstate commerce, and that combinations which restrain interstate commerce indirectly are not under the ban of the law.² This decision was all the more disconcerting because the manufacturers who combined were located in different states. While the decision did not say so, it was supposed that manufacturers in different states could combine and the company afterwards dispose of the products without reference to state lines. Apparently this was not the intention of the decision, or if so it was reversed by later decision.

The Kansas City Live Stock Exchange was a voluntary association doing business in Kansas and Missouri. The business was essentially that of a selling agency for cattle. The association had very strict rules regarding the methods of dealing of its members and also rules forbidding members of the exchange from buying of non-members. In this case it was held that the effect of the agreement in restraining interstate commerce was only indirect and therefore not under the ban of the act.³

The Traders' Live Stock Exchange, which at the Kansas City yards bought live stock coming from more than one

¹ U. S. v. Nelson, 52 Fed. 646.

² U. S. v. E. C. Knight Co., 156 U. S. 1.

³ 171 U. S. 78.

state, differed from the above exchange in that cattle were bought and sold. The members of the Traders' Exchange coöperated under strict rules as to the method of conducting their business, among which was the provision that the exchange would not recognize any trader who was not a member. The undoubted effect of the arrangement was coöperation in prices and in other ways in buying and selling. In this case, it was held that if there was restraint of trade, it was not direct, but only an indirect result of the operation of the association; and that the business, all being done in Kansas City, was intrastate rather than interstate commerce, although the cattle came from more than one state.¹

While the above decisions seemed to promise little for the effectiveness of the Sherman act, even in early years there were other decisions which looked toward its effectiveness. Thus, combinations fixing price and contracts for exclusive dealing were declared to be in restraint of trade,² also all the earlier decisions held that whether the restraint of trade was reasonable or unreasonable was immaterial.³

Reasonable and unreasonable immaterial.

The more important of these decisions were the Trans-Missouri⁴ and the Joint Traffic⁵ cases. In the Trans-Missouri case, Justice Peckham said it is "urged that the statute in declaring illegal every combination in the form of trust or otherwise, or conspiracy in restraint of trade or commerce, does not mean what the language used therein plainly imports, but that it only means to declare illegal any such contract which is in unreasonable restraint of trade while leaving all others unaffected by the provisions of the act." With this view the court disagreed, and held that all combinations in restraint of trade without exception or limitation are prohibited by the act. This was a bare majority decision. In the same case it was held that the Sherman act applies to railways and other public utilities as well as to industries. In the Joint Traffic case the same justice shaded this sweeping decision somewhat, by saying, "The act of Congress must

¹ 171 U. S. 604.

² 432 Fed. 898.

³ 85 Fed. 252; 115 Fed. 610; 166 Fed. 290; 167 Fed. 721.

⁴ 166 U. S. 327.

⁵ 171 U. S. 566.

have a *reasonable construction*," and he indicated in his opinion that certain combinations were not necessarily inhibited by the act.

The decisions under the Sherman act have uniformly held that exchanges and selling agencies and combinations, where the commerce was clearly interstate, which fix prices, divide territories or business, or limit output, are illegal.¹ This statement is slightly modified by a decision² concerning a boat company which sold to another company with the agreement not to do business between Cincinnati and Portsmouth for five years after the sale. This agreement was held to be valid.

Combination permitted by common law illegal.

In the case of an agreement between a number of manufacturers to market their entire output through a selling agency at specified prices, it was held that a selling agency organized to control all the business of the manufacturers was in restraint of trade and contrary to law. Combinations of companies for the purpose of preventing others from entering a business are in restraint of trade.³

Selling agencies illegal.

All combinations which have been shown to have the element of monopoly, or agreements which attempt to produce monopoly, have been declared to be illegal. This principle has been applied not only to industry, but to transportation, both boats and railways. While the decisions have been uniformly against monopoly, it has been decided that mere size does not constitute monopoly.⁴ Unfair practices, the aim of which was to drive from business and thus secure monopoly, are illegal.⁵

Mere size does not constitute monopoly.

The antitrust act forbids combinations of labor in restraint of commerce as much as it does combinations of capital. For laborers to interfere with interstate commerce is illegal under the act. It is illegal for an organization to attempt to compel an establishment to employ none but union men. Boycotts have been declared to be illegal. It is immaterial whether the persons who combine in a boycott

Act applies to laborers.

¹ 175 U. S. 211; 196 U. S. 375; 203 U. S. 390; 212 U. S. 227.

² 200 U. S. 179.

³ 209 U. S. 423.

⁴ 172 Fed. 455.

⁵ 193 U. S. 38; 196 U. S. 375.

are themselves engaged in interstate commerce.¹ As illustrating these principles may be cited the award of \$222,000 against the striking hatters of Danbury, Connecticut, same being against about two hundred working men.²

Of the more important decisions which have laid down broad principles affecting the future interpretation of the Sherman act the following may be mentioned:—

The Northern Securities Company³ was a holding company, possessing all or the majority of the stock of several railroads. This company was declared to be in restraint of trade. The decision was rendered comparatively early, and the question of reasonable or unreasonable restraint of trade was held to be immaterial. This decision, like the Trans-Missouri and Joint Traffic decisions, was by a five to four vote.

While Justice Brewer was with the majority, he dissented from the opinion given by Justice Peckham already cited that every contract or combination in restraint of trade was within the statute. This decision is of far-reaching importance, in that it appears to raise a doubt as to the legality of the great holding companies.

Recently there have been broad decisions declaring the Standard Oil, the American Tobacco, and the Dupont Powder Companies to be illegal combinations.

As has already been pointed out, the earlier decisions of the Supreme Court, under the first section of the Sherman act, insisted that the reasonableness or unreasonableness of the restraint was immaterial; and in this position the court followed the literal statement of the law as it looked to Peckham and as it still looks to a layman. The interpretations of the act in the cases of Standard Oil and American Tobacco shows a change in the position of the court. In the future it will declare only business to be interdicted by the act which is in undue restraint of trade. The second and third sec-

¹ 54 Fed. 994; 208 U. S. 274.

² Hearings, Interstate Commerce Committee, XX, pp. 1729-1730. For full presentation of the two sides of the Sherman act as applied to laborers see Hearings, Senate Interstate Commerce Committee, XX, pp. 1727-1778; XXIII, XXIV, pp. 1979-3102.

³ 120 Fed. 72.

Legality of holding company.

Word "reasonable" introduced into statute by decision.

tions of the Sherman act are apparently interpreted together. It seems to be the argument that the first section, prohibiting all combinations and contracts in restraint of trade, is meant to cover the same ground as the second section, which prohibits monopoly or attempt to monopolize; and thus the interpretation seems to be that restraint of trade which monopolizes or attempts to monopolize is interdicted by the law. This is the restraint of trade which is undue, and being undue is unreasonable; that is, undue and unreasonable are made synonymous terms.¹

The court gives the opinion that it was the intention of Congress that "the standard of reason, which had been applied at the common law and in this country in dealing with subjects of the character embraced by the statute, was intended to be the measure used for the purpose of determining whether in a given case a particular act had or had not brought about the wrong against which the statute provided." The court says, "The fact must not be overlooked that injury to the public by the prevention of an *undue restraint* on, or the monopolization of trade or commerce *is the foundation upon which the prohibitions of the statute rest*, and, moreover, that one of the fundamental purposes of the statute is to protect, not to destroy, rights of property."

Return to
common law
principle.

Apparently the decision of the court goes as far as practicable towards reintroducing the common law regarding combinations and contracts in restraint of trade. Combinations and contracts may take place provided they are reasonable; but the sweeping decrees regarding the disintegration of the Standard Oil and American Tobacco and other companies make it appear that it was not the intent of the court to go as far toward freedom as was permitted by the common law. Thus we are left in doubt as to how far the court will in the future permit combinations and contracts in restraint of trade.

The effects of the Standard Oil and American Tobacco decisions upon those organizations were as follows:—

The Standard Oil Company.—The Circuit Court of the

¹ The Supreme Court of the United States, No. 398, October term, 1910; *Ibid.*, Nos. 118 and 119.

United States for the Eastern district of Missouri on November 20, 1909, declared the Standard Oil Company to be an illegal combination; that the officers of the Standard Oil Company and thirty-seven constituent companies have combined and conspired to monopolize and have monopolized a substantial part of the commerce in oil among the states and in the territories and with foreign nations. The officers of the Standard Company were prohibited from voting the stock of the subsidiary companies, and the officers of the subsidiary companies were enjoined and prohibited from paying any dividends to the Standard Oil Company, although they were not prohibited from distributing rateably to the shareholders of the company the shares of the subsidiary companies. The subsidiary companies were enjoined from acquiring stock interests in potentially competitive companies, or from placing the control of any of the corporations under a trustee and making any agreement, implied or expressed, as to the management of other corporations, or to regulate prices, sales, rates of transportation, or outputs.

On May 15, 1911, this decree of the Circuit Court was affirmed by the United States Supreme Court, except in the minor modifications of time for executing the decree and for continuance of business during the time necessary to carry out the decree. The time for the dissolution of the corporation was extended to six months from the 21st of June, 1911, and pending the dissolution the Standard Oil Company continued business in the United States.

As a result of these decisions and orders the Standard Oil Company has now been broken into thirtyeight companies. These companies are not to have common officers or directors. The stock of the Standard was not widely distributed and the new companies have common owners. The officers of seven of the more important new companies remain in the same quarters which the Standard Oil Company before occupied, 26 Broadway.

President Taft has announced that the plan of the administration in prosecuting trusts is to secure "a degree of disin-

Standard
Oil Com-
pany a
monopoly.

Disintegra-
tion of
Standard
Oil Com-
pany.

tegration by which competition between its parts shall be restored and preserved.”¹ Will this result be reached in the case of the Standard Oil Company? Will the officers of the seven large companies in different rooms at 26 Broadway really compete in prices? That this will occur has been widely doubted by the public from the outset, and on February 29, 1912, it was announced that the Waters-Pierce Company of Texas had alleged that the disintegrated companies are combining, and this company had instituted an investigation in order to show the facts.

Is coöpera-
tion
destroyed?

Also the “Street” evidently does not take the Standard Oil decision seriously. When the case was in the courts, the stock gradually declined and reached a low level of 585. After the decision was rendered which finally dissolved the company, Standard Oil stock again rose until 900 was reached, more than 300 points higher than when the company was under attack. Apparently the men who know believe that the decision of the court will not be sufficiently destructive to reduce the great profits which the Standard has enjoyed and which will now go to the constituent companies.

Oil rising.

The American Tobacco Company. — On May 29, 1911, the Supreme Court of the United States declared the American Tobacco Company to come within the prohibition of the first and second sections of the Sherman antitrust act. The combination of itself as well as the elements composing it, both corporate and individual, were collectively and separately declared to be in restraint of trade and were found to be attempting to monopolize and monopolizing the tobacco business. In order to carry out the effect of this decision the lower court was ordered to ascertain some plan of dissolving the combination, or recreating out of the elements a new condition which should be in harmony with the law. To accomplish this a period of six months was allowed. If at the end of that time some plan had not been devised in harmony with the law for disintegrating the company, it was to be restrained from engaging in interstate business. In the meantime, the

Comprehen-
sive terms
of decision.

¹ Speech at Detroit, September 18, 1911.

company was restrained from enlarging its powers or extending its business.

In accordance with this decree and order the Circuit Court of the United States for the Southern District of New York, on November 6, 1911, approved a plan for disintegrating the American Tobacco Company, which, as we have seen, represented a consolidation of some two hundred and fifty corporations into fourteen companies. The outstanding securities, bonds, preferred and common stock, of the American Tobacco Company were found to aggregate \$223,168,250. The tobacco business, which was by far the larger part of the business of the company, was divided among three companies, the American Tobacco Company, having a capitalization of \$53,408,499; Liggett & Myers Tobacco Company, having a capitalization of \$67,447,499; and the P. Lorillard Company, having a capitalization of \$47,552,501. Thus these three companies together have a capitalization of \$168,408,409, which constitutes 70 per cent of the entire business of the original company and leaves but 30 per cent of the assets to be distributed among the other eleven companies.

One small subsidiary company, the Amsterdam Supply Company, which was a purchasing agency, was dissolved and the assets transferred into cash and distributed to the shareholders. A number of companies, including the Conley Foil Company, the MacAndrews & Forbes Company, the American Snuff Company, the American Stogie Company, and the American Cigar Company, each were required to divide into not less than two companies each, or to convert their assets into cash. Further the restrictive arrangements which had been made by the American Tobacco Company with foreign companies were abrogated.

The fourteen companies are enjoined from coöperating in business in any way; they must not occupy the same offices; they cannot hold the stock of one another, or even stock in companies in which other companies hold stock. Each company must do business in its own house, and the products of each must bear the firm name. For five years they are en-

Ineffectual
results.

joined from having common offices or directors or the same sales agents.

The stock of the American Tobacco Company was, in a manner like that of Standard Oil, distributed proportionally to his holdings to each stockholder of the fourteen companies. There were twenty-nine men who held a dominating position in the old corporation, and they in like manner hold a dominating position in the three new companies into which the chief assets of the old company have been divided.

It is the opinion of the Attorney-General that the disintegration ordered will accomplish the objects of the law, and will effectually prevent the recurrence of the agreements which, in the past, have resulted in a monopolistic situation.¹ He says that "the natural tendency of men to compete with one another will operate and the fact that there is community of stockholding cannot prevent that natural tendency."²

It appears, however, from the evidence presented in this book that the tendency for large companies to coöperate is much greater than their tendency to compete. This fact has led other men to hold views in sharp contrast with those of the Attorney-General. In the opinion of Mr. Louis Brandeis,³ one of the counsel for the independent companies, the order to disintegrate the American Tobacco Company will prove to be a farce. He says that not only was the tobacco business distributed among three companies, but the part of the business which was assigned to each company was such as to give them substantial monopoly for important lines of business assigned to them. Mr. Felix H. Levy,⁴ another of the attorneys of the independent companies, says the plan of disintegration "is a sham and a subterfuge." Mr. Samuel Untermyer⁵ says, "They have simply changed its clothes; that is all; and they have not made a very complete change at that."

Is competition or co-operation the stronger force?

A change of clothes.

As a matter of fact, we now have fourteen tobacco combinations which have the sanction of the courts instead of one that

¹ Annual Report of the Attorney-General of the United States, p. 6.

² *Century Magazine*, Vol. LXXXIII, No. 4, p. 620.

³ Hearing, Senate Interstate Commerce Committee, Part XVI, pp. 1165, 1166, 1215-1223. ⁴ *Ibid.*, Part VII, pp. 287-288. ⁵ *Ibid.*, Part V, p. 205.

did not. It is notable that after the order was given by the Supreme Court to dissolve the corporation, the stock of the American Tobacco Company fell to 390 per share; but that after the decision of the Circuit Court as to the kind of disintegration which was to take place, the common stock rose to as high a price as ever before in the history of the company, with the exception of a single day, \$529 per share.¹ This is the result of more than four years' litigation which cost the independent companies and the American company vast sums of money, and the government as large or larger sums, all of which will ultimately be paid by the public.

There remains to be mentioned the most notable feature of the tobacco decision. The Supreme Court said: "While in many substantial respects our conclusion is in accord with that reached by the court below, and while also the relief which we think should be awarded in some respects is coincident with that which the court granted, in order to prevent any complication and to clearly define the situation we think instead of affirming and modifying, our decree, in view of the broad nature of our conclusions, should be one of reversal and remanding with directions to the court below to enter a decree in conformity with this opinion and to take such further steps as may be necessary to fully carry out the directions which we have given."

The radical feature of the decision is contained in this last clause, "to take such further steps as may be necessary to fully carry out the directions which we have given." As we have already seen, the lower court in complying with this request approved a plan for the disintegration of the tobacco trust which had been proposed by the tobacco combination and had been approved by the Attorney-General. Thus this court took on the function of giving an order to the lower court to do administrative work, of a kind which has usually been done by a commission (see pp. 233-244), and for which a commission is much better adapted. When the order was executed as directed, the members of the disintegrated trust had the advantage of having the sanction of law. The admin-

The court
undertaking
administra-
tive work.

¹ Hearing, Senate Interstate Commerce Committee, Part XVIII, p. 1368.

istrative work of the court in disintegrating the American Tobacco Company, already severely criticized and generally believed to be futile, is one of the best evidences of the lack of adaptation of the courts to the handling of the complex administrative problems of great concentrations in industry.

The Du Pont Powder Company. — In the case of the E. I. Du Pont de Nemours Powder Company,¹ known as the powder trust, the company was dissolved and the broad principle was laid down by the Supreme Court, "that a combination cannot escape the condemnation of the antitrust act merely by the form it assumes or by the dress it wears. It matters not whether the combination be 'in the form of a trust or otherwise,' whether it be in the form of a trade association or a corporation, if it arbitrarily uses its power to force weaker competitors out of business or to coerce them into a sale to or union with the combination, it puts a restraint upon interstate commerce and monopolizes or attempts to monopolize a part of that commerce in a sense that violates the antitrust act."

Form of
combination
immaterial.

Dissolution by Mutual Agreement. — In addition to dissolution of corporations by the court, after full trial and conviction, there is another class of cases in which as a result of complaint the company without trial has agreed with the government as to the violation of the Sherman act, and decrees have been issued in accordance therewith with the consent of the company against which complaint was made.

One of the most notable of these cases was that of the General Electric Company. This company was charged with having a monopoly in the manufacture of incandescent electric lamps. This monopoly was secured through secret companies, and by having the exclusive rights in this country to use tantalum and tungsten filaments. This right through exclusive agreement was used to require that any firm buying lamps of these kinds should also buy all their carbon filament lamps from the General Electric Company. Through unfair methods, such as fixing prices, exclusive agreements, rebates, etc., monopoly was secured, the company having obtained 97

Unfair
methods of
competi-
tion.

¹ Annual Report of the Attorney-General of the United States, 1911, p. 8.

per cent of the incandescent lamp business of the country. In consequence, excessive charges for lamps were made, being seventeen cents apiece in this country, while the same lamps are sold abroad at ten cents.

A most comprehensive decree was issued restraining the General Electric Company from the various unlawful acts set forth in the petition, and particularly the following were ordered: That all subsidiary companies of the General Electric Company should be known as such and should conduct their business in the name of that company; exclusive contracts of all kinds were forbidden, such as requiring another company to sell goods exclusively to the General Electric Company, combining with other companies to fix prices, requiring that those who purchase tantalum and tungsten lamps should also purchase from the General Electric Company their carbon lamps. The company was enjoined from making a discount depending upon quantity of lamps purchased when the result is to combine or aggregate the discount on an unpatented and a patented lamp; it was further enjoined from making prices or terms of sale for the purpose of driving out of business any rival manufacturer; "provided that no defendant is enjoined or restrained from making any prices for incandescent electric lamps to meet, or to compete with, prices previously made by any other defendant, or by any rival manufacturer; and provided further that nothing in this decree shall be taken in any respect to enjoin or restrain fair, free, and open competition."¹

Another interesting case is that of a business association. In October, 1911, a most sweeping decree was given by agreement of both the United States and Southern Wholesale Grocers' Association. The members of this association were perpetually enjoined from restraining trade by having a list of dealers to whom special privileges were granted, including selling only to members of such association. They were enjoined from making any agreement regarding prices,

¹United States of America *v.* General Electric Company *et al.*, In Equity, Circuit Court of the United States for the Northern District of Ohio, Eastern Division. Petition and Final Decree.

Sweeping
decree.

Grocers'
agreements
illegal.

or even preparing a list of prices for the information of one another, from giving rebates or bonuses from any dealer because he is a member of the association, from boycotting any manufacturer who is not a member of the association or does not maintain limited selling prices. In short, the decree in most comprehensive terms enjoins the association from restraining trade in any way by fixing prices, making exclusive agreements, or granting exclusive privileges to members of the association. Under the decree it is difficult to see how there can be any combination of the members in restraint of trade either reasonable or unreasonable.¹

Other Corporations under Attack. — In addition to decrees of this kind there are a number of organizations attacked by the Attorney-General. Among these are the following: —

The United States Steel Corporation is attacked, both on the ground of the combination itself and of trade arrangements. It is charged that the American Steel Wire Company, one of the subsidiary companies of the corporation, has made combinations concerning a number of its products; and also that there are informal price understandings between the officers of the United States Steel Corporation and those of other companies.² The United Shoe Machinery Company³ is under indictment for combination in restraint of trade on a number of counts, including both monopoly and unfair practices in securing and maintaining monopoly. Similarly the National Cash Register Company⁴ and the Keystone Watch Case Company⁵ are attacked both for gaining monopoly and for unfair practices in securing the monopoly.

Patent
monopoly.

¹ *The United States of America v. The Southern Wholesale Grocers' Association et al.*, Circuit Court of the United States for the Northern District of Alabama. Decree of Injunction.

² *United States of America v. United States Steel Corporation and others*, Circuit Court of the United States for the District of New Jersey. Petition.

³ *United States v. Sydney W. Winslow et al.*, February Term, 1911, Nos. 113 and 114, Circuit Court of the United States for the District of Massachusetts. Indictment.

⁴ *The United States of America v. The National Cash Register Company and others*, Circuit Court of the United States for the Southern Judicial District of Ohio, Western Division.

⁵ *The United States of America v. The Keystone Watch Case Company and others*, Circuit Court of the United States for the Eastern District of Pennsylvania.

The National Cash Register Company is especially charged with a number of the most objectionable of unfair practices. In the petition it is complained that this company maintains a group of agents known as "knock-out men," who are employed for the special purpose of destroying competitors. They spy upon the business of the competitors, misrepresent cash registers of opposing companies, and sell registers which resemble their machines at a very low figure. It is charged that competing companies were purchased by the National Cash Register Company and this fact kept secret.

It is said that at Dayton was maintained a "graveyard" or "midway" and a "glooming room." In the former were displayed cash registers of companies that had been driven out of the business, and in the latter it was shown how these companies were driven from the business. Also, it is charged that patents covering cash register inventions have been purchased, and that inventors of other devices have been prevented from putting their inventions on the market. It is said that unwarranted and unjustifiable suits and threats of suits have been brought from time to time against competitors with the purpose of intimidating them. In order to make the plans of intimidation more effective, the National Cash Register Company distributed statements regarding dead cash register companies. One issued in January, 1910, stated that, during fifteen years, one hundred fiftyeight companies had been organized to compete with the National, and that of these, one hundred fiftythree had failed. With this statement is given a list of the defunct companies. Finally it is charged that at places where there was keen competition, prices were cut so as to prevent competitors from doing business except at a loss, the losses of the National Company being recouped by large profits where competition did not exist. No opinion is expressed as to whether or not these charges against the National Cash Register Company will be proved to be well founded.

Other companies which are under attack include the following: Swift, Armour, and other beef packers, several lumber dealers' associations, the wall paper combination,

Knock-out
men.

A glooming
room.

the American Sugar Refining Company, the Trans-Atlantic steamship pool, the Periodical Publishing Company, the Standard Wood Company, and several elevator companies.

General Statements. — In recent years whenever cases have been in the court under the Sherman act, pools, combinations, or agreements, producing restraint of trade, have been declared to be illegal. From the tenor of the decisions the conclusion might be reached that the law had been fairly effective in producing the results which were sought when the act was passed, at least for later years; but an examination of the situation shows the contrary to be true.

All of the railways connecting any two points in the United States charge exactly the same prices for the same service, be it freight or passenger. As already pointed out, it is a matter of common information that competition in price between the railroads does not exist; and this fact is tacitly accepted by the public and by the Attorney-General of the United States, although every person having common sense knows that the situation is only possible by agreements through informal understandings, traffic associations, etc.

Railways
coöperate.

For twenty years the major effect of the decisions has been to change the forms of combination, from the informal agreement or pool to the trust, from the trust to the holding company, and finally there is the beginning of the transformation from the holding corporation to the complete merger. At the same time this evolution has been going on for the great industries, hundreds of informal associations of exactly the same kind as those which have been declared to be illegal have arisen, such as the various retailers' and wholesalers' associations, the fruit growers' associations, the butter makers' associations, etc. Indeed, a comparison of the situation in the United States with other countries, such as England and Germany, in which combination is open, shows that at the present moment combinations exist to a greater extent in the United States than in either of those countries, in which trade agreements are enforced by the courts.

Law drives
combination
from one
entrenchment
to
another.

Could there be more positive evidence than this of the failure of the law to destroy combination and coöperation?

Impotency
of Sher-
man act.

The impotency of the Sherman act to accomplish the results for which it was made has been admitted by all, alike by those who would have it amended so as to give greater freedom in combination and by those who would have it amended so as to give a very strict construction, with the vain hope that it might thereby destroy coöperation.

Time
arrived for
national
solution.

Since the Sherman act was passed a child born has attained his majority. While there has been gain in the elimination of unfair practices, there has been no gain in preventing combinations in restraint of trade, the fundamental purpose of the law. It would seem that the time had now come for a rational consideration of the principles which should apply to the situation in order to secure reasonable results both for combinations and for the public without interfering with great economic tendencies. Any attempt further to amend the law so as to make it more rigid as against coöperation cannot but be futile. The problem of combination in restraint of trade is one too large, too complex, and too irresistible to be handled by the courts. This situation has been clearly seen by Knox, by Wickersham, and by others who have attempted to secure the results aimed at by the Sherman law; they have found themselves baffled. The constructive side of the case is presented on pp. 248-266.

SECTION 4

STATE LEGISLATION AGAINST TRUSTS

Many of the states have constitutional provisions or statutes which embody the same principles as the Sherman act. Among the states which have constitutional provisions against combination in restraint of trade or monopoly are: Alabama, 1901; Arkansas, 1836; Idaho, 1889; Kentucky, 1891; Maryland, 1867; Mississippi, 1890; Montana, 1889; North Carolina, 1875; North Dakota, 1889; South Carolina, 1895; South Dakota, 1896; Tennessee, 1870; Texas, 1875; Utah, 1895; Virginia, 1902; Washington, 1889; Wyoming, 1889.

The Statute Laws. — The names of some of the states

and the date of the statutes against restraint of trade and monopoly are as follows: Alabama, 1907; Arkansas, 1897, 1899, 1905, and 1907; California, 1907; Florida, 1897; Georgia, 1896; Illinois, 1891, and 1893; Indiana, 1897, 1899, 1908; Iowa, 1897; Kansas, 1889, 1897, and 1899; Kentucky, 1903; Louisiana, 1890, 1892, and 1894; Maine, 1899 and 1903; Massachusetts, 1908; Michigan, 1889 and 1903; Minnesota, 1891, 1899, 1905, and 1907; Mississippi, 1890, 1906, and 1908; Missouri, 1891, 1899, and 1907; Nebraska, 1897; New Mexico, 1891, 1897, and 1907; New York, 1892, 1897, and 1899; North Carolina, 1899 and 1905; North Dakota, 1890, 1897, and 1907; Ohio, 1898, 1905, and 1906; Oklahoma, 1890 and 1908; South Carolina, 1897, 1899, and 1902; South Dakota, 1890, 1897, and 1899; Tennessee, 1889, 1891, 1897, and 1903; Texas, 1895, 1899, 1903, and 1907; Utah, 1898 and 1907; Wisconsin, 1893 and 1897.

It is notable that only two of the states had antitrust acts prior to 1890, the year the Sherman act was passed. The State antitrust acts were the natural response to the public demands within the states for prohibition of restraint of trade in intrastate business, similar to that which had been enacted regarding interstate business. As would be expected, under the circumstances, while the phraseology varies, the prohibitions of the state laws are substantially like those of the Sherman act, except that they, of course, contain no reference to trade between the states and territories or with foreign countries. In a number of instances, trusts, pools, and holding companies which have the purposes of regulating output, dividing the market, or controlling prices are specifically prohibited. In a few states there are special features which should be noted, as giving additional insight into the situation.

In *Georgia* is a provision that the general assembly of that state shall have no power to authorize any corporation to buy shares of stock in any other corporation in that state or elsewhere, or to make any contract or agreement whatever, with any such corporation, which may have the effect to defeat or lessen competition in their respective businesses, or to encour-

The contagion of legislation.

age monopoly; and all such contracts and agreements are declared to be illegal and void. This is the only instance in which the law specifically forbids the interholdings of stocks, a remedy which is advocated by many for interstate commerce.

In the *Illinois* and *Louisiana* laws there is a clause which states "that the provisions of the act shall not apply to agricultural products or live stock while in the hands of the producer or raiser"; and in the *Louisiana* law is the additional clause that the law shall not be construed to affect any combination or confederation of laborers for the purpose of increase of their wages or redress of grievances. The legislatures of *Louisiana* and *Illinois* in passing an antitrust law apparently fully appreciated the fact, practically unnoticed in the public discussions, that the selling agencies of the farmers for marketing their produce may be as clearly a combination in restraint of trade as are similar selling agencies of manufacturers. The exempting clause for agricultural products was declared to be void by the United States Circuit Court of *Illinois* as being class and special legislation.

In *Massachusetts* it is a criminal offense to impose "the condition in a sale of goods that the purchaser shall not sell or deal in the goods of any person other than the seller."¹ This law has been held to be constitutional.

In *Michigan* is a provision of the law declaring illegal contracts "not to engage in any avocation, employment, pursuit, trade, profession, or business, whether reasonable or unreasonable, partial or general, limited or unlimited." This state law specifically goes beyond the common law principle of reasonable restraint. This law accords with the decisions of the Supreme Court of the United States which had been made up to that time. It was not until 1911 that the courts introduced, by interpretation into the Sherman act, the word "reasonable."

In *Oklahoma* the antitrust law prohibits several unfair practices. Thus it is prohibited to discriminate by sale at a lower rate in one section than in another, "or at the same rate or price at a point away from that of production or manu-

¹ 191 Mass. 545.

facture as at the place of production, etc., if the effect or intent is to hinder competition or restrain trade." Also, the Oklahoma law is very specific regarding trusts, holding corporations, limiting output, and marketing. It is declared unlawful to issue or own trust certificates, or to enter into any combination, etc., for the purpose of placing the management or control of such combination, or the conduct or operation of the same, or the output or produce thereof, or the marketing of the same in the hands of any trust or trustees, holding corporations, etc., with the intent to limit or fix prices, lessen the production or sale of any article, or the use and consumption of the same, or to prevent or restrict, the manufacture or output of any such article. Further, in this state the following very significant provision is inserted in the law: "Whenever any business, by reason of its nature, extent, or the existence of a virtual monopoly therein, is such that the public must use the same in such a manner as to make it of public consequence, or to affect the community at large as to supply, demand, or price thereof, or said business is conducted in violation of section 1 (6679), said business is a public business and subject to be controlled by the state, by the corporation commission, or by an action in any district court of the state, as to all of its practices, prices, rates, and charges." This paragraph clearly looks toward the point of view that the great concentrations of industry become public utilities; indeed, whenever the element of monopoly or restraint of trade to the extent of affecting the community enters as a whole it makes them so. When this situation is reached for any business, it comes under the same principles of control as the common carriers.

Industries
having a
public
interest.

In *South Dakota* the law especially protects the farmers, as follows: Any combination to prevent competition by raising the price beyond the reasonable cost of production or that tends to advance the price to the user of farm machinery, implements, tools, supplies, lumber, wood, and coal, imported into this state from any other state, territory, or county, beyond the reasonable cost of production and sale of same or which tends to and does induce a sale of wheat,

corn, oats, barley, flax, cattle, sheep, hogs, or other farm or agricultural products for less than they are worth at time of sale, or for what they would sell at in open market, if such contract did not exist, is declared to be unlawful.

In *Utah* it is seen that when professional men agree on prices the principle is the same as in other combinations, and the law says, "Any combination having for its object the controlling of the prices of any professional services, any products of the soil, any article of manufacture or commerce, or the cost of exchange or transportation is prohibited and declared unlawful."

The *Nebraska* antitrust law of 1897 was most sweeping in its character. It very definitely makes all combinations in restraint of trade to whatever extent a trust and declares the same to be illegal. Also it prohibits in comprehensive terms all classes of coöperation. It, however, excludes from its provisions all assemblages and associations of workingmen and provides that "there is thereby reserved for them all the rights and privileges now accorded them by law."¹ This act was declared to be unconstitutional by the federal courts as depriving persons of their liberty in violation of the federal Constitution and also as exempting labor organizations from its provisions, thus denying equal protection of the laws to persons not members of such organizations.

In *Texas*, refusing to buy or sell to another any article of merchandise is declared to be conspiracy in restraint of trade. Also, agreements to boycott or threaten to refuse to buy are made illegal. The state statute prohibits all combinations in restriction of competition or trade, but exempted agricultural products and live stock while in the hands of the producers or raisers.² This law was declared by the federal courts to be a violation of the amendment to the Constitution of the United States, which declares that no state shall deny any person within its jurisdiction equal protection under the laws.

The Illinois, Nebraska, and Texas decisions seem clearly to

¹ 110 Fed. 816, 1901.

² 79 Fed. 627, 1897.

show that the antitrust laws in those states which contain exemptions in favor of any class will be held to be unconstitutional by the Supreme Court of the United States.

Decisions under the Statutes. — In this brief book there is not space to discuss in detail the decisions which have been rendered under the statute laws. In general, the statutes regarding combinations and contracts in restraint of trade have gone much farther than the common law in imposing restrictions upon commerce. The author knows of no instance in which state statutes have moved in the direction of the English Parliamentary act in enlarging the scope of combination. The effort of the statute law has been to reach restraints of trade which would have escaped the ban of the common law. Pools, trusts, combinations, and monopolies have been declared not to be legal. For the most part restraint of trade taking the form of contracts regarding division or restriction of territory, or regulation of output or prices, have been declared unlawful. Such decisions have been rendered in many states,¹ although, under the common law, many of the forbidden agreements would have been allowed. It is not necessary to give the details of decisions covering these points, and only those having some special feature will be summarized.

Agreements regarding the fixing of price for insurance have been held to be illegal. In Iowa this has been applied to a group of local insurance agents who agreed upon the price for each class of risk.² In Minnesota a combination by which twenty-eight independent companies agreed to place the control of their business with one company to the extent of fixing the rate was held to be in restraint of trade and a violation of the code.³ In Missouri, an agreement of insurance companies regarding rates was declared illegal.⁴

A local agreement to raise the price of beer in Kentucky

¹ 147 Cal. 115, 1905; 107 Pac. 712, 1910; 65 Ill. App. 502, 1896; 182 Ill. 551, 1889; 171 Ill. 391, 1898; 65 Kas. 240, 1902; 112 Ky. 925, 1902; 119 Mich. 255, 1899; 134 Mich. 103, 1903; 140 Mich. 538, 1905; 187 Mo. 244, 1905; 116 N. W. 302, 1908; 177 N. Y. 473, 1904; 139 N. Y. 251, 1893; 72 Ohio State, 210, 1905; 61 Ohio State, 520, 1900; 106 Pac. 969, 1910; 128 S. W. 599, 1910.

² 102 Ia. 602, 1897.

³ 75 Minn. 28, 1897.

⁴ 152 Mo. 1, 1899.

Restrictive
trend of
state laws.

\$1 a barrel was declared to be illegal, although it had for its purpose the raising of the price of an intoxicant, the increased use of which the law does not favor.¹

It is not necessary that a combination shall secure a practical monopoly of the product in order to be in restraint of trade under some of the state statutes.² Transactions creating a local monopoly for a limited period (ten years) have been declared to be illegal.³ In Oklahoma this principle has been carried so far as to hold that a combination by three companies manufacturing ten per cent of a product is in restraint of trade.⁴

Contracts for exclusive dealing have been declared to be unlawful in a number of states. In Kansas exclusive contracts of agents to handle International Harvester machinery were declared to be in restraint of trade.⁵ In Michigan agreements to sell all the salt manufactured to a single concern and to stop the manufacture of salt upon the payment of a certain rental was held to be illegal.⁶ In Texas an agreement to buy oil and beer from a single firm, to sell at a fixed price, and not to sell to competing dealers, was declared to be in violation of the laws in restraint of trade.⁷

In general, agreements made by associations by which their members would have the advantages of exclusive dealing or which discriminate against non-members regarding prices and other matters, have been held to be unlawful.⁸

Thus produce exchanges which discriminate in prices between members and non-members have been declared to be in restraint of trade.⁹ In Michigan it has been held that a contract to sell lambs where the buyer agrees not to purchase any other lambs to a fixed time is held to be void, since under the statutes all contracts designed in any manner to prevent or restrain price competition is unlawful.¹⁰

In Oklahoma an agreement not to enter business within one

¹ 112 Ky. 925, 1902. ² 214 Ill. 421, 1905. ³ 128 S. W. 599, 1910.

⁴ 59 S. W. 709, 1900. ⁵ 81 Kas. 610, Feb., 1906.

⁶ 134 Mich. 103, 1903.

⁷ 19 Texas Civ. App. 1, 1898; 90 Texas 277, 1896. See also 119 Mich. 255, 1899, and 97 Miss. App. 280, 1902.

⁸ 211 Mo. 181, 1908; 75 Neb. 637, 1906; 103 Tenn. 99, 1899.

⁹ 82 Minn. 173, 1901.

¹⁰ 119 Mich. 255, 1899.

hundred miles of Oklahoma City was declared to be in conflict with the statute which provides for disposal of good will on an exclusive basis only to the extent of a specified county.¹

In Minnesota it has been held to be a violation of the statute to sell kerosene, as has been done by the Standard Oil Company, at different prices at various localities, with the intent to destroy business of competitors and create monopoly.²

Selling agencies are under the ban of the law in some states. In New York City there was created an agency for the buying and selling of milk at wholesale and retail. The majority of the stockholders in this agency were milk dealers in the city of New York. The board of directors fixed the price at which milk should be purchased by the stockholders. This price so fixed, controlled the markets and the combination was declared to be unlawful.³ Similarly the producers of bluestone combined in an association to regulate the price and apportion their output under which separate companies made the sales for each participant. This arrangement was declared to be unlawful.⁴

The above sufficiently illustrates the dominant trend of the decisions against restraint of trade. Some of the states have allowed contracts in restraint of trade to a very limited extent. In California, when a merchant purchased a certain quantity of olive oil, agreeing not to sell the same below a certain price per gallon, this agreement was held not to be in violation of the code restraining monopolies.⁵ In New York in one case it has been held that an agreement under which wholesale dealers, manufacturing certain proprietary articles, sell their goods at a uniform jobbing price only to such dealers as would conform to the manufacturers' price list is legal.⁶ Along the same line it has been held lawful for manufacturers to give jobbers rebates who would agree not to sell for less than the list price prescribed by the manufacturers.⁷

Restraint
allowed to
limited
extent.

In New York an agreement between a builders' association and a bricklayers' union, under which the association gave

¹ Wilson's "Review and Annals," St. Okl., 1903, sections 819-820.

² 126 N. W. 527, 1910. ³ 145 N. Y. 267, 1895. ⁴ 164 N. Y. 401, 1900.

⁵ 156 Cal. 611, 1909.

⁶ 175 N. Y. 1, 1903.

⁷ 40 N. Y. App. Div. 513, 1899.

preference to the members of the union, and no member of the bricklayers' union could work for any one not complying with the regulations, was declared not to constitute a monopoly within the New York statute.¹ An agreement of the Duluth board of trade providing that all members of the board shall charge uniform rates of commission for selling grain to non-members was declared not to be a violation of the Minnesota antitrust act.²

Contracts for limited exclusive agencies, and to refrain from business for a limited time and place, have been held to be legal. In Mississippi a contract for an exclusive agency for a definite territory to sell a certain article manufactured by a single company was held not to be in restraint of trade.³ In Arkansas an agreement to refrain from soliciting insurance in Jefferson County for five years was held to be lawful.⁴ It has been held to be reasonable for shopkeepers to agree as to the hour of closing their shops.⁵

General Statements. — The foregoing discussion of the situation within the states shows that the statute laws have been very strictly construed regarding restraint of trade. The great majority of the decisions under the laws have been against combinations and contracts in restraint of trade, and against regulation of output, division of territory, and agreements in prices. However, the last set of cases cited show that contracts restraining trade to a very limited degree have been allowed.

The statute laws are as strongly against combination or restraint of intrastate trade as is the Sherman antitrust act for interstate commerce. Upon the whole the situation within the states with regard to restraint of trade under the laws and decisions is practically the same as with interstate commerce under the Sherman act.

The legislation against the trusts among the states along the same lines as that of Congress shows the influence of contagion, and the willingness of legislatures to act upon a generally accepted faith such as that which prevails

¹ 169 Fed. 256, 1909.

² 101 Minn. 506, 1909.

³ 77 Miss. 476, 1899.

⁴ 121 S. W. 293, 1909.

⁵ 54 S. W. 969, 1900.

concerning the power of competition adequately to regulate commerce.

As already pointed out, combinations, in prices formal or informal, exist everywhere, from the two or three grocers at the country crossroads to the great business concerns. Just as the effect of the Sherman law has been steadily to increase the concentration of industry, so the legislation in the states regarding restraint of trade has been an influence in the same direction.

The foregoing makes it clear that where a sound and powerful economic tendency appears which appeals to the common sense of the community as necessary for the general welfare, a law, however drastic, cannot stand in its way. Burke said in his address upon Conciliation with America, "I do not know the method of drawing up an indictment against an whole people." If at the present time the laws against combination in this country are to be strictly enforced, it will be necessary to draw an indictment against the larger part of the business men of the country.

The great combinations which have been selected for indictment have been those against which popular clamor has been directed. The selection of them has been largely due to this cause combined with their magnitude. Is it not a most unfortunate situation when tens of thousands are guilty, that here and there one is picked out for prosecution?

One of the most serious evils in connection with the situation arises from this fact. The business men, knowing that coöperation is not possible under the law, are driven to secret understandings and gentlemen's agreements. In the dark, serious abuses appear in connection with coöperation which would not arise if the coöperation were legal and therefore there was no reason to hide the facts from the public. In this respect the business men of England and Germany are in an advantageous position as compared with those of the United States. In those countries they may coöperate; in the United States they may not.

It would indeed have been fortunate had we allowed the common law to stand, and instead of enacting statutes to

prohibit coöperation, had undertaken its control through some administrative instrumentality. While it is believed that the present campaign, by the Attorney-General, to destroy coöperation and return to competition will not be successful, yet if it should be successful for trade, manufacture and commerce will again be in the position that they were when England and America were under the old restrictions of common and statute law. If it should turn out that business is forced to this situation, we shall again be obliged to go through the same stage of development that both countries have once undergone, — amelioration of the law until reasonable coöperation is again permissible. In that case we shall, by our unwise attempt through statute law to stem the tide of great economic forces, make America go through two cycles of evolution to reach, permanently, reasonable trade conditions, whereas one cycle has been sufficient for all other civilized countries.

CHAPTER IV

THE SITUATION IN OTHER COUNTRIES ¹

To describe adequately the situation regarding concentration in industry for other countries would involve for each a book as large or larger than this; therefore there can be inserted but the briefest summary of the principles which have controlled combinations and restraint of trade in several of the more important countries.

SECTION 1

ENGLAND

The situation in England is fully described by Macrosty,² and from his book this statement is mainly taken.

As already pointed out, the law of England originally prevented combination in restraint of trade. This principle was abandoned many years ago, and the doctrine was accepted that freedom in trade gave freedom to combine as well as freedom to compete, provided the combination did not result in monopoly. Under these circumstances there have grown up extensive combination and coöperation in almost every line of industry in Great Britain; but, not being driven from one position to another by prohibition of combination, the movement toward giant holding companies or mergers has not been so far-reaching as in this country. To a considerable extent the combinations are through coöperations and federations rather than mergers, although in a number of cases consolidation has gone far; and there are

Federations
rather than
mergers.

¹ The situation regarding industrial combinations in Europe to the year 1900 is fully described by J. W. Jenks, Report of the Industrial Commission, Vol. XVIII, pp. 343.

² "The Trust Movement in British Industry."

a few industries in which a single combination controls more than half of the business.

In the iron and steel industry amalgamation is far advanced, so that at the present time the larger part of the business is controlled by a few large combinations. The greater consolidated companies are united into an association under which there are agreements or understandings regarding prices, markets, and allotments. Says Macrosty:¹ "Summing up the situation in the iron and steel industries, the conclusion forced on us seems to be that the tendency is towards the evolution of a comparatively few large units in each branch, and then that these units should combine into a loose organization for the regulation of their trade." The combinations in iron and steel include both horizontal combination, that is, union of plants of the same kind, and vertical combination, or union of the industry from its raw material to the finished product.

Large units
in the iron
trade.

In coal mining and cement making, consolidation and coöperation have taken place, but the process has not gone so far as in iron and steel.

In the textile industries concentration has extended very far. This combination, unlike that of steel, is mainly of the horizontal kind. The first great success in amalgamation in this business was the J. & P. Coats consolidation. This business has expanded so as to become an international company. The success of this combination led to similar ones for various textiles, although large combinations as yet have not extended to all lines of the business, nor for all have they been successful.

Textile com-
binations.

In the chemical industries, combinations have extended very far. Concentration has been rapid in the grain-milling industry. In tobacco there is one great consolidation, the Imperial Tobacco Company, which occupies a position in Great Britain analogous to that of the former American Tobacco Company in this country. Even in the retail business, which Macrosty points out is the last stronghold of competition, combination and coöperation exist upon an extensive scale.

Tobacco
combina-
tion.

¹ "The Trust Movement in British Industry," p. 82.

While in the various consolidations of Great Britain overcapitalization and promoters manipulations have been frequent, these have not gone so far, nor been so widespread, as in this country, where consolidation has been stimulated by adverse laws, and where combination has had the protection of a tariff. Macrosty says: ¹ "The weakness of every form of combination in the United Kingdom is due to the free admission of foreign competition." He states that if that condition can be removed, the combinations will be enormously strengthened. The combination which confines its operations strictly to Great Britain is at a disadvantage as compared with combinations in countries which have a protective tariff, for the reason that the excess products of the foreign countries can enter Great Britain without payment of duties; whereas the reverse is not the case. This situation has resulted in international combinations for a number of the more successful of those which center in or do business in Great Britain. Such international combinations are illustrated by the Imperial Tobacco Company with a capitalization of £17,500,000, the United Alkali Company with a capital of £8,200,000, the W. Cory & Sons Coal Company with a capital of £2,800,000, the J. & P. Coats Thread Company (this combination includes England, America, and Belgium), the Nobel Dynamite Trust Company with a capital of £3,000,000, and the international steel rail combination.

Combina-
tion and
tariff.

British com-
binations
not confined
to United
Kingdom.

Macrosty summarized the situation as follows:—

"The position of the British combinations in regard to the interests of the community may be summed up as not at present dangerous but containing, like every new development, great and unknown possibilities alike for good and for evil. Over prices their powers are not great but are growing. So far they have shown no increased power over their employees, and with a strong trade union they need not have." . . .

Cannot go
back to
early con-
ditions.

"Nothing could be more fatal than in a panic to try to turn back a great industrial movement. So far as can be seen the great amalgamations are the best instruments of

¹ "The Trust Movement in British Industry," p. 342.

production yet devised, and to break them up into their original components would be foolish if it were not in most cases impossible. Crude methods of suppression are always wrong, nor does it seem sensible to search among legal principles relevant to a different stage of industry for weapons to hamper and obstruct." . . .

"Repressive legislation could only affect the outer form of combination. Amalgamation cannot be prohibited without forbidding the union of even two firms, while to make monopoly illegal would be fruitless where no formal monopoly exists, and there is no way of determining the greater effectiveness for evil of a merger including eighty per cent of the trade over one containing only fifty. No law can suppress the Gentlemen's Agreement, where there are no rules, no constitution, no contract, but common action is effected verbally and informally, and yet some of the most oppressive combinations have been of that form. Neither combination nor agitation should be driven underground, and it is significant that to-day complaints are generally raised in the United Kingdom, *not against the legally recognized amalgamations but against associations which have no existence in the eyes of the law and work in secret.* To strike at the methods adopted by combinations is not easy without at the same time repressing measures blamelessly adopted by the individual trader. Boycotting, dumping, selling at a loss to crush competition, maintaining prices at the highest level which the market permits — these are no monopoly of combinations, but are weapons in everyday use by manufacturers, merchants, and shopkeepers. It would be indeed an extraordinary thing to strike at competition in the name of competition."¹

Futility of
repressive
legislation.

SECTION 2

GERMANY

In Germany, combination has gone farther than in England. In 1897 Liefmann gave a list of 345 combinations in

¹ "The Trust Movement in British Industry," pp. 343-345.

that country. Usually the combinations, called cartels, are contracts among independent establishments which limit output, divide markets, and control prices. Oftentimes these are accomplished through central agencies. It is clear that these cartels for each of the lines of business, concerning which they exist, act powerfully in restraint of trade. Many of them comprise substantially the feature of the typical trusts of the past in America which have been dissolved by the courts. But in Germany, violations of these contracts are held to be immoral. In other words, the principle is broadly accepted and enforced by the courts, that freedom in commerce involves freedom to combine as well as freedom to compete.

Extent of
combination
in Germany.

As illustrations of these cartels, the Steel and Potash combines will be briefly described.

The German Steel Combine. — Combinations in Germany have extended farthest in the iron industry. One of the largest and most successful of these combinations is that of the steel producers. This combination is especially important because of its analogy to the United States Steel Corporation, the fundamental difference being that the German steel combination is within the pale of the law, while the United States Steel Corporation is attacked by the United States Attorney-General as being interdicted by the law. The statement given below is by Professor T. K. Urdahl: —

Steel Com-
bine lawful
in Germany.

“The German Steel Combine is the largest private industrial undertaking in the world outside of the United States. The aggregate capital of the combined firms amounts to over 1,250,000,000 marks, and the average annual value of its products exceeds this sum. The contracts and articles of incorporation upon which this giant combination is based were signed on the 29th of February, 1904. Its duration was originally limited to three years, but in 1907 it was renewed, and to-day it stands as one of the strongest organizations in the industrial world, controlling, as it does, 95 per cent of the steel output of Germany.

Magnitude
of steel
combine.

“The scheme was not devised at a given moment by the

brain of a genius, but, like the modern political state, was preceded by a long series of experiments.

Origins.

"Each of the organizations representing the stages in the evolution of the steel combine was more complex and more perfectly adjusted to its environment than were its predecessors.

"Instead of swallowing up and assimilating the many competing elements, as have the American trusts, the German Steel Combine represents a confederation in which the individual members retain much of their independence and autonomy. In one sense, it is a syndicate of syndicates, since it grew out of and took over the functions of six large cartels, each controlling one large line of steel products.

"There were :

- (a) Half-manufactured Products Combine, Düsseldorf.
- (b) Steel Beam Combine of Lower Rheinisch-Westphalian District, Düsseldorf.
- (c) German Steel Rail Association, Düsseldorf.
- (d) German Steel Tie Association, Düsseldorf.
- (e) South German Steel Beam Association, St. Johann a. d. Saar.
- (f) German Steel Beam Association, Wiesbaden.

"TABLE 50. SHOWING RELATIONS OF GERMAN STEEL CARTELS

ORE	PIG IRON	IRON AND STEEL		FINISHED STEEL PRODUCTS
		Asso. for sale of half-manufactured products, Düsseldorf	STEEL COMBINE	Armor plate
	Pig Iron Syndicate	Steel Beam Asso., Lower Rhine, Düsseldorf		Sheet iron Tin Sheet steel

ORE	PIG IRON	IRON AND STEEL	FINISHED STEEL PRODUCTS	
Asso. for sale of Siegerland iron ore	Düsseldorf	German Steel rail Asso., Düsseldorf	Wire nails	
	Pig Iron (Thomas iron) Sales Bureau, Düsseldorf		Wire rope	
		South German Steel Beam Asso., St. Johann	Woven wire	
	Asso. for sale of Siegerland pig iron, Siegerland		German Beam Association, Weisbaden	STEEL COMBINE	Steel tubes
		Tin cans		
	Upper Silian Pig Iron Syndicate, Zabrze	German Ry. Tie Association, Düsseldorf	Enameled ware	
			Gas pipe	
	Upper Silian Pig Iron Syndicate, Zabrze	Upper Silian Steel Combine	Steel Beam Dealers' Association	Steel Beam Dealers' Association
				Hardware Manufacturers' Association
				Steel Spring Manufacturers' Association

“Each of these was organized to handle and sell its special products in its own field, and had developed a successful organization to carry out special purposes.

“In organizing the steel *combine* it was necessary to devise a scheme to do the work of the above named cartels and in addition to perform similar duties for a large variety of firms and associations, altogether thirty-six, out of which the combine was formed. Among these there were some relatively simple manufacturing plants known as ‘pure roller mills,’ steel mills without smelters of their own, engaged in transforming pig iron and steel ingots into roller mill products. There were other firms that not only combined smelters with roller mills, but owned and operated coal and ore mines and conducted wire nail and steel rail mills as well.

“In order to carry on the marketing of this great variety of material the steel combine established three main divisions or bureaus for handling *A* products: 1. half-manufactured products (ingots, pig iron, steel blocks, etc.); 2. heavy railroad material; light railroad material (ties and rails). 3. structural iron; (I and U beams, etc.). Each division has separate bureaus for taking care of domestic trade and of exports.

“In handling all *A* products the steel combine has complete control of the purchase and sale, and becomes the owner of the product during the brief space of time intervening between the purchase from the smelter and sale to the manufacturer. This system is an improvement upon the scheme that prevailed in the earlier syndicates whereby the syndicate acted merely as an agent for the individual members. Furthermore, the combine exercises the power to determine what the maximum output shall be, and apportions among the different firms their quota of the total output of all the mills.

“In handling *B* products, which include all other roller mill goods, the syndicate pursues an entirely different policy. Here all orders are received, either directly from the consumer or through the members, and are distributed by the central bureau among different works according to certain

rules. These are: First, each member shall receive orders until its output, when compared with its allotment, is relatively as large as that of the other members of the combine. Second, cheapness of freight charges and avoidance of cross freight shall be considered. Third, so far as possible orders shall be so distributed as to stimulate territorial division of labor. Whenever an order is sent to a steel firm it must at once be forwarded to the central bureau, which then places the order with the firm entitled to it under the above rules. The wishes of the person placing the order are not considered unless his desires conform with what is deemed desirable from the standpoint of the combine.

"All producers of *B* products are divided into groups. Every group has allotted to it a certain quota of output, which quota is always established by a resolution of the entire steel combine. The combine may increase or decrease the quota of any group at pleasure, but, thus far, no radical reduction has been attempted. Instead, a gradual increase, amounting in ten years to nearly 33 per cent has been authorized. All goods bought from the syndicate must be paid for on the fifteenth of the following month, and the syndicate itself settles with the individual members on the twentieth of the following month.

Terms of
sale.

"The price paid to the producers is fixed by the syndicate, and is generally called the table price (*Tabellen-preise*), which is supposed to cover roughly the cost of producing. Prices to the consumer are generally quoted free on board for railroad material at the works, — for structural iron at *Diedenhofen*; and for half-manufactured products at certain centers for groups of producers, five of which are specified in the syndicate agreement. Freight to the center is paid by the works, and freight from the center is paid by the consumer. Should the consumer be located nearer to the works than to the center, he is still compelled to pay freight from the center. This saving in freight is given to the works enjoying the advantage. All general sales prices are fixed quarterly and apply usually for the next two quarters. These prices are known as standard prices, and only

Price at
works.

in an exceptional case is any one allowed a rebate or a lower price. For extra quality or exceptional forms of steel goods the combine establishes exceptional prices. The difference between the table price and the selling price is noted for each group of products. Careful accounts are also kept of losses and administrative expenses connected with each group of production. After these losses and expenses have been deducted from the surplus, the remainder is distributed pro rata among the members of the group in quarterly payments.

“ Since 1902 there has been in existence, in Düsseldorf, a bureau maintained and originally organized by the four syndicates producing half-manufactured goods, but at present jointly maintained by the coal syndicate, the raw iron syndicate, and the steel combine. When the syndicate exports to foreign countries, it pays the producers the regular table prices, and the loss involved, if any, is charged against profit and is thus shared by all members of the group producing the exported products. In order to promote exports a system of export premiums has been established. These premiums amounted in 1907 to the following sums :

“ Marks 1.50 per ton for coal used up in the production of steel exported.

“ Marks 2.50 per ton for iron ore used in the production of steel exported.

“ Marks 15 per ton for partly manufactured steel (inclusive of the coal and iron ore premium).

“ Marks 20 per ton for steel rails of all kinds (inclusive of the premiums on coal and raw iron).

“ In addition to these premiums others are added by special cartels, such as the wire nail syndicate, the wire syndicate, etc. Premiums are ordinarily paid to works in proportion to the amount of raw material, coal, etc., used in the production of its exports ; but a firm which owns its coal and iron mines is not always entitled to the maximum amount authorized by the bureau. Only firms that use coal and iron included in the output authorized by the syndicate are allowed this privilege. The premiums granted are also

established by the syndicate and may change from time to time as the conditions warrant.

“The manufacturing industries claim, and apparently with good grounds, that the export policy of the steel combine will in the long run prove disastrous to the exports of the German machine industries. Whenever the home market is unable to absorb the amount of steel that the producers place at the syndicate’s disposal, it is generally forced to reduce its price to foreign buyers in order to get rid of the output. In this way, the foreign manufacturer of machines, by obtaining his raw material from the German combine, is placed in an unduly advantageous position in competing with the German producer. In 1904, for example, pig iron was sold abroad at from 69 to 71 marks, whereas the domestic buyer was forced to pay from $82\frac{1}{2}$ to $92\frac{1}{2}$ marks. The steel combine admits this charge, but claims that its importance has been greatly exaggerated by critics of the syndicate.

Effect of
export
policy.

“The combine is bound by contract to receive and pay for all the product of each individual member, provided the same does not exceed the quota allotted to the firm in question. The steel thus purchased is sold by the combine to industrial and other concerns at a uniform price known as standard price. Only in very exceptional cases is any steel disposed of to a domestic concern at any other price. The standard price is established by the directors of the combine at the beginning of each quarter. The quota assigned to each relates exclusively to products offered for sale. Any member of the combine may use as much steel and iron as it pleases in its own factories.

Fines and
penalties.

“If any member violates the contract of the syndicate by selling directly *A* products to consumers, he is compelled to pay a fine of one hundred marks per ton for each ton of goods sold. Every other violation of the contract is punished by a fine of 1000 marks for each offense. A restricting penalty of twenty marks per ton is imposed upon the firms for each ton they produce in excess of the amount of *B* products allotted to their plants. If any firm produces *A* products in excess of its quota, it is required to pay a fine of

five marks per ton. In the same way, firms producing less than their quota are entitled to five marks per ton premium from the syndicate. No member of the combine is allowed to sell or rent his plant to an outsider without the consent of the syndicate. He is also forbidden to establish new plants or to own shares in any company outside the combine. All differences of opinion between members of the combine are to be settled by a Board of Arbitration, and under no circumstances are to be carried into the courts. The syndicate exercises no control whatever over the method of securing iron ore or other raw material by the individual members. It also refrains from interfering with labor struggles, strikes, or other disputes.

“The combine has secured sufficient orders to enable all its members to increase their output about 33 $\frac{1}{3}$ per cent and at the same time has secured gradually increasing prices. Increased output in large scale production necessarily results in cheapening the cost per unit of production to the limit of maximum efficiency.

Increase in
prices.

“As a result of the combine, the profitableness of steel works and the value of steel stocks has increased materially since the syndicate came into existence. Apparently, therefore, the syndicate has been decidedly beneficial to the plant owner. Still it must not be forgotten that the period in which it has been in existence has been one of favorable industrial conditions. The gross profits of fourteen of the largest works increased, in the year 1904–1905, 31.8 per cent, whereas the capital invested in the works in question was increased only 8.6 per cent. Averages, however, do not indicate fully the influence of the steel trust upon each individual member. Generally the larger and more powerful members have benefited more than the weaker ones through its activity, and in some cases the condition of the weaker members has deteriorated rather than improved. While some companies have undoubtedly been able to remain in existence as a result of the syndicate’s activity, that would under the competitive system have been forced to the wall, others that might have developed under the competitive system have

Increase in
profits.

apparently been held back by the cartel's policy of combination.

"If the combine had not been created, the smaller works would probably have been swallowed up, one after another, until the steel industry of Germany developed into a trust-like consolidation resembling the United States Steel Corporation. This tendency has been restrained rather than eliminated, since numerous consolidations have been made within the combine during the period in which the steel syndicate has existed.

"The most important advantage which the steel syndicate has secured for its members is a diminution in the costs of handling and sale of steel. The average per ton cost has amounted to only 25 pfennig, whereas it is claimed that the cost for the same service in the American steel combination is \$2 per ton. The comparison is not correct, however, since the \$2 per ton in the latter includes a large number of overhead charges, which in the German works are borne by the individual firms.

Lowered
costs.

"Costs of production have also been cheapened by the steel combine as a result of the increased division of labor made possible by its creation. Under the cartel contract it has been possible for one mill to exchange orders for certain kinds of goods for which its equipment was inadequate with another mill whose facilities for making this class of goods were more up-to-date. In this way it has been possible for some mills to produce on a large scale relatively few kinds of steel products, such as steel rails, beams, etc.

"Another advantage obtained by the members from the existence of the cartel is in dealing with strikes and labor difficulties. Whenever a strike threatens, the concern can transfer its quota to some other mill where there are no labor difficulties. Furthermore, the syndicate contract contains a provision releasing the mill from obligation to deliver goods whenever a strike is on. Such an arrangement would have been impossible under the competitive system, and losses growing out of strikes would undoubtedly have been much greater if the syndicate had not existed.

Advantages
in strikes.

Quality of steel. "In general it is feared that the organization of the steel industry in the form of the steel combine will result in a gradual deterioration in the quality of steel products and that the chief object of the combine will become quantity rather than quality. On the other hand, it is also clear that the steel works will be able to specialize much more successfully under the cartel régime than has been possible under the competitive system. The steel producers are now able to devote themselves solely to the problem of production, since the cartel takes over the entire distribution of the products. In addition to this tendency, the owners of smelters are not forced to devote so much time to the problem of the purchase of raw materials, since this side of the business has also been systematized so that purchases are made on a large scale by joint agreements between iron ore owners and steel producers.

Stability. "It is also asserted that the steel combine has secured much greater stability in the iron and steel market than was possible before it came into existence. This stability has made it practicable for manufacturers to avoid losses which formerly were almost inevitable. It has been possible for the cartel to shift the burden more and more upon the less organized manufacturers who use steel products as raw material. Consequently the last and unorganized stages of steel product manufacture, *e.g.* machine making, etc., have been forced to bear the greater proportion of the burdens caused by a gradual increase in prices. These manufacturers will undoubtedly be able to shift a part of the burden upon the final consumer. As yet, this process has not been entirely completed in a great many lines.

"In times of business prosperity the steel combine fulfills its contracts only partially and this also constitutes ground for complaint on the part of purchasers of steel goods.

Harsh sale conditions. "Many complaints are also directed against the strict conditions of sale imposed by the combine. It is maintained that the wishes of customers are not given due consideration, that they are compelled to take the quality of steel which the combine sees fit to give them, regardless

of the special needs of their business. Furthermore, it is asserted that the combine delivers steel to certain firms, from different plants, which makes it difficult for the manufacturer to secure as uniform a grade of goods as he had been able to obtain when he bought all his steel from the same firm. The steel syndicate claims that most of these complaints are based upon prejudice and imaginary differences in quality.

“A comparison of the total output of steel in Germany with the total steel output of the United States during the last ten years demonstrates the fact that for some reason or other the steel production has been much more stable in Germany than in America. The crises of 1903 and of 1907 resulted in a violent slump in the production of America. These crises had relatively little effect upon the work of the steel mills. Whether the absence of fluctuation in Germany can be traced back to the steel cartels, or whether it is due to the fact that German industrial conditions are more stable than they are in America, is a question which cannot be easily answered. It is probable, however, that the German cartels have solved the problem of adjusting the supply to probable demands about as successfully, if not more successfully, than the American steel combine.”

For the great German steel combine, thus described by Professor Urdahl, controlling ninety-five per cent of the industry of the country, it is clear that coöperation is allowed to proceed to the extent of monopoly, and that without any administrative control by the government or attempt to prevent the combination from fixing prices which the markets will stand. It is notable that the combination sells steel abroad lower than at home; in some cases as much as twenty per cent cheaper, in this respect following the same policy as the United States Steel Corporation. This is possible because Germany, like the United States, has a protective tariff; and therefore the foreign producer cannot enter the domestic trade of these countries. This is reserved for the home corporations. If it were not for the fact of Germany's tariff, it is plain that it would not be

Effect on
steel output.

Surplus
sold abroad
at low
prices.

possible to keep the level of prices for iron and steel higher at home than they are in the world's markets. The same is of course true for the United States.

*The Potash Industry.*¹— One of the most interesting of the combinations in Germany is that of the potash industry. In the Stassfurt district are the greatest potash mines of the world. A comprehensive law concerning potash was passed in 1910 creating a board of apportionment. This board fixes the amount which is to be sold during any year; it determines the proportion that each producer — and they are some fifty in number — shall be allowed to mine. Any producer may exceed his allotment by ten per cent; but if he does, the excess is deducted from his next year's allowance. If a company exceeds this maximum it must pay a greatly increased tax upon the excess. The companies are forbidden to lower grades. The maximum price is fixed for each grade of the product; and not only this, but freight rates are adjusted, so that the prices are equalized at different commercial centers, just as the anthracite combination fixes the price of that article at Boston and Buffalo. The law also provides that the price of potash in Germany shall not be greater than it is abroad. The taxes on the potash companies are reserved for the administration of the governmental machinery necessary to control the industry. Each company must give a full report of all its transactions. The books are open to the board of apportionment. There is an appeal from the board of apportionment to a commission, just as in the proposed plan allowing coöperation in America there is appeal from the commission to the courts. (See pp. 242-243.)

Before the above law was passed there was a syndicate which controlled the potash industry. When this syndicate agreement terminated, two companies broke away and made contracts for large sales of potash in America. This situation led to the above law, which embodies many of the regulations previously contained in the syndicate

¹ The full text of the potash law is given Hearings, Senate Interstate Commerce Committee, Part IX, pp. 489-497.

agreements. The law was therefore a direct outgrowth of previous experience under the pressure of an emergency. One reason which was strongly urged for its passage was that it would result in the conservation of the potash resources in Germany. Before combination, the potash industry had all the difficulties of many competing concerns with regard to a natural resource limited in extent. Prices were too high or too low. The plan of controlling the potash industry in Germany promises to work to the satisfaction of the producer, and to the satisfaction of the government, which is a part owner in the potash mines.

Combinations result of development.

It is notable that for the potash industry, in which complete monopoly is allowed, restrictions are introduced which are not regularly applied to the cartel in Germany. The board of apportionment has authority to control prices; not only so, but to prohibit the selling of material abroad cheaper than in Germany. In both of these respects the policy of the government is an advance over that which applies to the steel combination. That combination, while not a complete monopoly, controls 95 per cent of the output of the country; and there is no government regulation of prices either at home or abroad. In consequence of this, as we have seen, prices are kept up at home and reduced abroad sufficiently to sell the surplus product.

Complete monopoly allowed.

While in Germany coöperation is permitted to an almost unlimited extent, the laws are there very severe against unfair competition. The types of unfair competition are closely defined, and a party who is injured through their violation may recover damages.

SECTION 3

AUSTRIA

In Austria the laws make illegal all agreements to raise prices and other contracts to the detriment of the public. There are exceptions to the extent that agreements which maintain prices in times of crises, reduce prices, and secure

Law against
cartels.

more favorable conditions of production, such as lowering of freight rates, large scale purchases, etc., are lawful. While, upon the whole, the law of Austria is against cartels, the industrial situation is similar to, but not identical with, that of Germany. Combinations extensively exist. Some of the more successful ones are those in iron, sugar, and petroleum. Ordinarily these combinations control outputs and prices. This may be accomplished through selling bureaus and by division of markets.

Combina-
tion
continues.

The courts, acting under the laws stated, have been less favorable to the combinations in their decisions than the courts of Germany. While, in some cases, contracts for the division of the market, fixing of prices, etc., have been declared illegal, these decisions have not been any more successful in checking the tendency toward combination than have similar decisions in this country; indeed, they have somewhat accelerated mergers in Austria as they have greatly in this country. According to Jenks¹ the tendency to combination has been retarded to some extent by the regulation requiring publicity in business, and because of the fact that taxes are heavier on corporations than on private firms.

Looking toward the future in Austria, a government commission has recommended the recognition of combinations by law and their supervision and regulation by government authority.

SECTION 4

FRANCE

Law against
combina-
tions.

In France the laws provide heavy penalties against price agreements for food products. The courts have held that combinations which do not have the purpose of raising prices, but to prevent prices from falling and to regulate their fall, are lawful. Also combinations which do not strive to raise prices but only to secure a market so as to put them in a position to compete with their rivals have been held to be lawful.

¹ "Ency. Brit.," 37, 338.

One of the effects of the laws against combinations and agreements in France has been to drive them to secrecy, the same as in this country. It is therefore difficult to ascertain the extent to which combinations exist, but it is certain that they are widespread.

Selling bureaus have been established which receive orders and fix prices for the establishments concerned. This form of organization has not been successfully attacked in the courts. These agreements and selling agencies affect many industries, including sugar, petroleum, and porcelain.¹

Coöperation
goes on.

SECTION 5

GENERAL STATEMENTS

Belgium has many cartels which are very similar to those of Germany, and often the cartels in the two countries are closely related. Some other countries having cartels for various products are: Bulgaria, Egypt, Italy, Portugal, Roumania, Spain, Scandinavia, Switzerland, and Russia.

From the foregoing summary regarding the situation in foreign countries it appears that the premises with which Great Britain and Germany start concerning combination in restraint of trade is just the reverse of our own. Our faith is in competition; their faith is in coöperation. Clearly the theory of the United States or that of Great Britain and Germany is wrong. In this country there exists a popular distrust and fear of combination and the desire to strike it wherever it appears; in Germany and Great Britain combination is accepted as a necessary step in commercial progress. The expanding trade of Great Britain and Germany gives strong evidence of the merit of their point of view. Those who have watched the development of Germany since the Franco-Prussian war have been amazed at the rise of that country to a position in commerce at home and abroad second to no country in the world. In many lines of manufacture, for instance, steel,

The faith of
Britain and
Germany in
coöperation.

¹ "Ency. Brit.," 37, 338-389.

the foreign trade of Germany and Great Britain vastly exceeds our own; not only so, but it is more rapidly expanding. It, of course, cannot be held that the astonishing advance of Germany in commerce and the increase in foreign trade of Germany and Great Britain are due exclusively to freedom to coöperate in business as well as freedom to compete; but it may be safely asserted that this was one of the essential conditions to their great success.

SECTION 6

INTERNATIONAL COMBINATIONS

Combinations not only exist in the European countries and in the United States, but for many industries international coöperation has begun between the great companies in different countries. Macrosty¹ says that "rails, tubes, nails, screws, sewing thread, bleaching powder, borax, nitrates, and tobacco are to a greater or less degree brought under international control, while, at least till lately, dynamite was so controlled, and repeated efforts have been made similarly to syndicate the whole steel trade." The forces which have produced such international combinations are the same as those which have resulted in those confined to one country, the maintenance of prices, division of territories, and limitation of production.

Perhaps the most important of these combinations is the International Rail Syndicate, which was formed in 1883 between Great Britain, Germany, and Belgium. Under this agreement England was awarded 66 per cent of the business, afterwards reduced to 63½ per cent; Germany, 27, afterwards 29 per cent; and Belgium 7, afterwards 7½ per cent. Later this pool was broken up with a fall of prices, but in 1904 it got together again on a different basis, that of division of territory. In 1905 the United States was taken into the arrangement. Also, there have been international combinations for a number of other iron and steel products.

¹"The Trust Movement in British Industry," pp. 63-64, 342.

Wide extent
of inter-
national
combina-
tion.

The steel
rail syndi-
cate.

One of the most important of the international combinations is that of the marine interests. In 1902 the International Mercantile Marine Company was organized under the laws of New Jersey, with a capital of \$120,000,000, one half common and one half preferred stock. The combination included the following lines: Leyland (49 vessels, 295,000 tons); White Star (29 vessels, 181,000 tons); Atlantic transports (23 vessels, 183,000 tons); American and Red Star (24 vessels, 181,000 tons); Dominion (14 vessels, 110,000 tons).

The marine syndicate.

Without being a member of the International Mercantile Marine Company, the Hamburg American and North German Lloyd Companies, with 190 vessels and 1,093,000 tons, have entered into a working agreement with it by which a committee composed of four representatives, two of which are named by the International Mercantile Marine Company and two by the German company, are authorized to fix rates, distribute steeage passengers, etc.

TABLE 51. SHOWING CONSTITUTION OF SHIPPING COMBINE

a. International Mercantile Marine Company	} Combination	} Cartel, known as Shipping Combine	
North German Lloyd Hamburg-American Company			} Cartel
b. Belgian Red Star Line.	}		
c. Holland-American Line.			
d. Compagnie Trans-Atlantique.			
e. Cunard Line.			

Another shipping combine is said to control the freight business between New York and the Far East. Both of these marine companies are under attack for violation of the Sherman antitrust law.¹

¹ United States v. Hamburg-Amerikanische Packetfahrt-Actien-Gesellschaft, and others, U. S. Circuit Court, Southern District N. Y. 2d Dist.; United States v. American-Asiatic Steamship Company, and others, District Court of the United States for Southern District of N. Y.

At Jena there is a central bureau. Each member of the cartel sends a statement to the bureau, giving the freight and passenger business of the company. If a member of the combination has carried more than his share, he pays the surplus into the treasury or pool, which in turn reimburses the companies whose businesses have been curtailed.

Oil is one of the businesses in which the international combination and coöperation have gone far, in some places there being union, in others division of territory.

As we have already seen the American Tobacco Company made an agreement with the Imperial Tobacco Company under which each was to respect the home territory of the other, and a combination company was created, the British-American Tobacco Company, through which the two handled their foreign business.

The nitrate combination regulates prices and output. Some businesses have become international by one of the great companies buying other companies in the same business, or establishing branches in foreign countries. The latter applies to a number of the greater companies of the United States, illustrated by the Westinghouse Company.

It is not the intention to give a detailed description of international combinations, since this would unduly expand this book. That international combination has gone so far shows the world-wide extent of the tendency for coöperation in business.

The United States cannot successfully compete in the world's markets without large industrial units. When combination and coöperation are permitted not only in foreign countries but as between foreign countries, if the manufacturers of the United States are excluded from uniting and from taking part in international coöperations, they will not be important factors in the world's markets. No nation can walk by itself in the world's trade. If the Sherman act is rigidly enforced in its present form, and the administration apparently regards this duty as resting upon it, American manufacturers must look mainly to their home markets.

Combina-
tion world-
wide.

CHAPTER V

REMEDIES

SECTION 1

SPECIFICATIONS TO BE MET

BEFORE presenting a constructive plan to meet the existing situation in trade, it will be well to give specifications regarding the things that are to be accomplished and the things that are to be avoided, the same being based upon the statement of facts contained in the previous chapters. In making these specifications, the aim will be to present a consensus of opinion, not personal views.

1. While the existence of a non-competitive field, that of the public utilities, is admitted, and in many cases for such, monopoly must exist, outside of public utilities there is still a large field for competition. Competitive conditions should be retained in the industries. Certainly there should remain competition for business; there should remain competition for quality; there should remain competition in prices so far as this is consistent with other specifications. A condition should not be allowed to arise such as to render competition in prices, quality, or service impossible. In order to retain freedom of competition it will be necessary to prevent monopoly. In those industries in which freedom of competition does not now exist, the facts regarding individual industries (given pp. 104-150) show that this condition has arisen and has been maintained very largely through unfair practices or by monopoly.

Competi-
tion to be
retained.

2. Unfair practices must be prohibited and unfair advantages must not be permitted. Only so will it be possible to

Unfair
practices.

retain competition.¹ Some of the more important regulations should be as follows:—

(a) All corporations should be placed upon the same basis with reference to common carriers. Discrimination, rebates, drawbacks, and exceptional services should not be allowed.

(b) Business should not be allowed to be carried on by secret companies or combinations. The complete organization of any corporation should be open. No company should appear to be independent which is not so.

(c) The grosser forms of unfair competition, such as espionage of business competitors, bribing of men in the employ of competitors, etc., should be prohibited.

(d) No agreement should be allowed requiring exclusive dealing; nor should any rebate or advantage be gained from exclusive dealing.

(e) Local selling at or below cost to kill competition should be prohibited.

3. Reasonable coöperation between corporations should be permitted. It is believed that in business under modern conditions, coöperation not competition should be the controlling word. Sufficient coöperation should be allowed to prevent fierce and unrestrained competition which goes to the extent of reducing prices below a reasonable amount. Only by coöperation can the enormous wastes of competition be avoided. In this connection the form of the solution which may be adopted to secure coöperation may depend very largely upon the definition of reasonable and unreasonable. If all restraints of trade are reasonable which do not produce monopoly, then we may accept the common law principle that unreasonable restraint of trade is not to be allowed, and under this principle secure coöperation. But if unreasonable restraint is to be narrowly construed, so as to interdict all combinations which divide territories, regulate outputs and make price agreements, then unreasonable restraint of trade must be redefined by statute in order to secure the benefits of coöperation. Much of the confusion in

Coöperation
to be per-
mitted.

¹ Details as to the kinds of unfair practices which have arisen in business may be found by reference to Chapter II.

the thinking and discussion concerning concentration is at this point, some persons having in their minds that all restraints of trade are reasonable which do not go to the extent of monopoly, and others holding that almost any form of coöperation in business is unreasonable restraint of trade.

Just as coöperation of capital should be allowed, so coöperation of laborers should be permitted. The laborers find themselves prevented from coöperation by the Sherman law precisely as have the industrial combinations.¹ It is clear that unless laborers may unite in trade unions, in joint bargaining, and in all legitimate matters which concern them, they will be helpless. Not only should coöperation between capitalists and coöperation of laborers be allowed, but coöperation of the two groups should be permitted. In short, it is advocated that the principle of coöperation should control in commerce, including both laborer and capitalist.

4. Corporations should be allowed to be of sufficient magnitude to give the highest economic efficiency in order that (a) they may be able to supply the needs of our own people at the lowest practicable rate, and (b) to secure an increased proportion of foreign trade. As to magnitude which may be allowed without the presumption that in consequence of this there is unreasonable restraint of trade, it may be suggested as a working basis that no one corporation, including all its subsidiary companies, should be permitted to control more than 50 per cent of any line of business of the country. There is no sanctity in the number 50, and this may be reduced to 40 per cent or increased to 60 per cent if either be more acceptable to the public. This rule is not only to apply to a corporation as a whole but to each of the different lines of business which may be covered by it. If this principle be accepted, it is natural to say that any corporation which has more than 50 per cent of the business of the country is a monopoly, and that monopoly is unreasonable restraint of trade.

Sufficient
magnitude
for effi-
ciency

¹ Hearings, Part XX, pp. 1727-1778.

5. It must be possible to secure the freedom of competition defined under 1 and the prohibition of the unfair practices under 2 practically without cost to the complainant. It is the theory that all are equal before the law, but everybody knows this theory is unsound. Under modern conditions, in which there are giant corporations with substantially unlimited funds, the man who has a small business is not equal to such organizations before the law because of his inability to bear the expense of the contest. If concentrations of industry be allowed to exist, some machinery must be devised under which the weak man may be sure of fair practices and an open field.

Justice
without cost
to complain-
ant.

6. For all businesses in which there is any restraint of trade, reasonable or unreasonable, through coöperation, there should be full publicity. As soon as coöperation is permitted, the business as a matter of fact is invested with a public interest; and even if not declared to be a public utility, if any privileges are given for coöperation, or for magnitude, which involves restraint of trade to the extent of controlling the market, all the operations of the company, including the profits, should be matters of public knowledge.

Full pub-
licity.

7. Corporations should be required so to conduct their businesses as to conserve the natural resources. This will involve the restraint of competition so as to prohibit waste. With reference to the future, this specification is one of paramount importance. The difficulties regarding production and distribution of wealth we are sure to solve. In the meantime there may be loss and waste and unjust distribution. There is not of necessity permanent loss. If, however, natural resources of great value are allowed to be wasted or destroyed, this is a perpetual loss to the race. Thus, as has already been pointed out (pp. 89-94), if a large percentage of coal be wasted under severely competitive conditions of mining, if there be waste in the mining of our metals so that a considerable part of the deposits are left in the ground in such a condition that they cannot in the future be recovered,—this is an irreparable loss which permanently impoverishes our people.

Conserve
resources.

8. Coöperating corporations should give just rewards to labor. The wages paid should be fair; and fair wages for a man means wages such that he can support a family under decent conditions so that his children may have open before them the avenues of opportunity.

Just re-
wards to
labor.

9. The business of the great corporations should be conducted under good social conditions. It has been charged that some of the great corporations require too long hours of labor, and that the work is carried on under very unfavorable conditions. On the contrary, with regard to other great corporations, it is claimed that in these respects the larger organizations are in a better position than the smaller ones. Both of these statements appear to be true. So far as large businesses are allowed to exist, because of their magnitude, these social factors become of special importance; and the great concentrations which have exceptional strength or magnitude should not be allowed to take advantage of labor in hours, service, sanitation, or other social factors.

Good social
conditions.

10. Fair prices should be obtainable by individuals or groups selling to the great corporations. Corporations should no more be allowed unduly to depress prices for materials necessary for their manufactories than they should be allowed unduly to depress prices of labor.

Fair prices.

11. Corporations should not be allowed to charge excessive prices to the consumer. So far as the public in general is concerned, the greatest complaint with respect to the concentrations of industry has been the excessive prices; that is, the stockholders of the great corporations rather than the public have gained the major part of the advantages of their exceptional efficiency. If great organizations are allowed to exist and to coöperate, it is clear that they cannot remain without restraint in fixing prices. Some way must be found to prevent excessive charges and thus guard the interests of the public. In order that fair prices may be secured, it is necessary that certain other things be prohibited; among which are the following:—

The public
to share in
the profits.

(a) If great concentrations of industry be permitted to exist, there must be some method of guarding the capital-

zation of the mergers and consolidations in order to protect the public against the ill-advised purchase of watered stock, and against the payment of dividends upon watered stock. It is fully appreciated that this matter of overcapitalization is one of extraordinary difficulty concerning which it is not easy to formulate definite rules. This will be appreciated if the report of the Railroad Securities Commission of 1911, on public utilities, be examined. In some cases it is fair to a certain extent to capitalize good will, trade marks, and patents. Also in passing from the competitive system to the coöperative system, it may be necessary to take into an organization some plants which cannot be utilized but which must be paid for. In such cases there is loss in either method, by operating under the competitive system or by capitalizing under the coöperative method. This is well illustrated by the whisky combination. When this consolidation was formed, it was found economical not to utilize a considerable number of plants taken into the combination. So far as such plants could not be used for some other purpose than that of distilling they became a complete loss. Thus, while some capitalization of unproductive property and good will is allowable, this should be on a conservative basis. Capitalization of hoped for earning power may not be legitimate.

(b) Excessive costs of organization and manipulation by promoters should not be allowed. It is clear that while fair charges for promotion, including underwriting, are permissible and should be included in the capitalization, one of the great evils of the recent era of consolidations has been excessive charges in these particulars.

(c) Speculative management should be guarded against and payment of unearned dividends prevented. While these evils are not peculiar to the great corporations, as an organization increases in size it becomes of increasing public interest, and therefore should be considered in an exceptional way in proportion to the magnitude of the enterprise.

12. Finally the scope of the powers of the United States and the several states should be clearly defined in the control of commerce. Mr. Bryan said at the White House in 1908 :

Overcapitalization.

Promoters' charges.

Speculative management.

“There is no twilight zone between the nation and the state, in which exploiting interests can take refuge from both.”¹ The twilight zone.

If this phrase were changed from “there is” to “there should be” it would precisely express the situation. Nothing is plainer than that there is a twilight zone between the nation and the states where the great corporations have taken refuge from both. This has clearly appeared in the prosecutions carried on by the Attorney-General of the United States in attempting to enforce the Sherman act.

Minimum Specifications. — It cannot be expected that at once a scheme will be enacted into legislation to meet all of the above specifications. It may be doubtful, indeed, if it be advisable to present a complete plan to meet them, since any such plan would be sure to be profoundly modified in all but its essential features before the time was reached for the enactment of the more remote parts of it. It will be the work of many years to secure a system of legislation, state and national, which will meet the specifications made in regard to which there seems to be a consensus of opinion. It must be remembered that the temper of our people is such that in handling any complex situation by legislation, advance is made step by step, each one being very short. This is very well illustrated by the legislation for handling public utilities to be subsequently spoken of.

Conservative temper of our people.

It is therefore essential, if possible, that we select the fundamental points among the specifications upon which a consensus of opinion can be reached, and propose a program which deals definitely only with those points, leaving the other specifications to be handled by later amendments.

Of the specifications given it appears to me that two are fundamental and paramount to the others.

The first is that the weak and the strong shall alike have full opportunity to secure justice from the great corporations. That this is the situation at the present time no one would claim. There have been a few recoveries of damages by important companies or combinations against greater com-

¹ Conference of the Governors of the United States, Washington, 1908, p. 201.

binations which have been in restraint of trade; but so far as the general public is concerned, the individual who has been overcharged, the small company that has been weakened or destroyed by unfair practices, has had substantially no redress. The law may have been such that if the individual or the small company had unlimited money, and the courts proceeded with ten times the expedition that they now do, an approximation to justice might be reached; but these are not the facts; they never will be the facts. No sane man can deny that the existing laws or any other possible ones, however severe they might be made against the great concentrations of industry, would be of no avail to the workman who is overcharged for an article of daily consumption, or to the small producer. If we are to retain the essentials of a democracy, and are not to become a plutocracy, some plan must be devised under which the weak as well as the strong has redress for wrongs, has his rights respected. If the most ardent advocate of court method of procedure against corporations in restraint of trade through amendments of existing laws to be enforced by the courts believes that there is any possibility of redressing the wrongs of the individual and securing the rights of the weak, he must indeed be blind to the experience of the past fifty years of development and be content with faith without works.

Second if the arguments in the earlier chapters of this book are approximately sound, we must now accept for this country the principle of coöperation in business. Even the most ardent defender of the competitive system says that competition must be regulated; and he says that the alternative is between regulated competition and regulated monopoly.¹ The writer holds that there is no such alternative. We should not accept competition as the controlling principle on one side, nor monopoly as the controlling principle on the other side. We should accept the broad principle that reasonable coöperation should be allowed in business as it is allowed everywhere else in our social structure.

¹ Brandeis says: "The real issue is regulate competition or regulate monopoly." Hearings, Part XVI, p. 1162.

The weak
and strong
to be equal.

Reasonable
coöperation.

We have seen that the laws against great concentration of industry have been without avail to give justice to the individual. Similarly, they have been without avail in preventing coöperation. The Sherman law and some of the state antitrust laws are now over a score years old. At the time the Sherman law was enacted it was supposed that the courts would be competent to regulate the trusts so as to produce reasonable rather than unreasonable coöperation. That this would not be the case Professor Richard T. Ely¹ clearly foresaw a dozen years ago. He says: "If there is any serious student of our economic life who believes that anything substantial has been gained by all the laws passed against trusts, by all the newspaper editorials which have thus far been penned, by all the sermons which have been preached against them, this authority has yet to be heard from. Forms and names have been changed in many instances, but the dreaded work of vast aggregation of capital has gone on practically as heretofore. The writer does not hesitate to affirm it as his opinion that efforts along lines which have been followed in the past will be equally fruitless in the future."

Failure of courts.

As has been clearly developed in the earlier parts of this book, the views which Professor Ely held at that time have been fully justified. The laws against trusts and the actions of the courts in their enforcement not only have not prevented the existence of concentrations and the enlargement of the trusts, but have greatly accelerated their development.

SECTION 2

COMMISSION CONTROL OF PUBLIC UTILITIES

In marked contrast with the situation for industry during the past score of years, there has been sound development in control of one great line of concentration, that to which the term public utility applies. For many years it was an accepted faith that the wrongs to individuals perpetrated

¹ "Monopolies and Trusts," p. 243 (1899).

by the great public utilities corporations were to be redressed through the courts of law and that competition was to regulate prices. Under this faith, millions of wrongs went unredressed; and competition led to unnecessary duplication, great loss to the public, destruction to the weak, and finally, complete dominance of the great public utilities and especially the railroads.

Wrongs unredressed.

The well-recognized maxim upon which the traffic managers worked under the old régime was to impose all the traffic would bear, to make the kind of service rest exclusively upon the returns. In short, the theory originally enunciated, it is alleged, by Commodore Vanderbilt, "The public be damned," if not always announced openly, was the real feeling which was dominant in many of these corporations. They were regarded as private properties to be run for those who owned the stocks and bonds and not for the advantage of the public. All the laws made against the public utilities corporations and their enforcement through the courts by action for damages or by state's attorneys to protect the public rights accomplished practically nothing. But the fact that these organizations were public utilities in law and therefore did have an exceptional relation to the public led step by step to another method of control, — that by commission.

"The public be damned."

Early Commission. — As early as 1869, the state of *Massachusetts* created a railroad commission, upon which was imposed the duty of supervising all the railroads of the state, "whether operated by steam, horse, or other motive power." It rested upon the commission to ascertain whether the railroad company complied with the laws of the state and to consider the complaints of citizens. However, the commission had only the right of suggestion. It might inform the railroad company that the rates charged were too high; it had no authority to enforce a lower rate.

California, in 1876, established a railroad commission called Commissioners of Transportation, the powers of which went far beyond those of the *Massachusetts* commission. They included the establishment of stations, the prohibition of discrimination, and the power of examination of books.

New York established a state railroad commission in 1882. This commission had power to investigate accidents resulting in injury or loss of life, had the power of examining the books, had imposed upon it the duty of calling to the attention of the company any violation of the law, unfair practices, excessive rates, inadequate facilities, etc., with recommendations. If these recommendations were not complied with by the railroads, the commission could present the facts to the attorney-general, who was to secure redress through the law.

These cases illustrate the beginnings of commission control of public utilities in this country. In this brief statement, it is not possible to give a history of the application of commissions to public utilities, for adequate consideration of the commission laws would involve a book much larger than the present one. In general, however, it may be said that these early commissions had the power to investigate and make suggestions and recommendations to the railroads. If these recommendations were not complied with, they might be presented to the Attorney-General for prosecution in the courts. While the early commissions accomplished something, there was no fundamental change in the situation. The railroad company need do no more than it desired to do in any of the matters recommended, except as compelled by action of a court of law; and, as we have already seen, this method of procedure has been a failure for the control of concentration of industry from the outset.

From these beginnings, the commission idea of control of railroads extended to many other states; and there was a gradual expansion of their power until finally in some states rate-making authority was given.

The first state to pass a comprehensive law including this power was *Iowa*. In 1897 a law was passed in that state which gave to a commission of three members general supervision over all the common carriers of the state. The inhibitions of the act and the powers of the commission were substantially the same as those contained in the interstate commerce act of 1887 (see pp. 238-239), and the latter law

Power limited to recommendation.

Iowa fixed rates.

undoubtedly served as the model for Iowa. If the railroad companies failed to obey the order of the commission, the commission could petition the district court to enforce the order.

The Iowa law went farther than the interstate commerce law in that it gave the commission the power to prescribe maximum rates. After hearing the evidence in a case "the board shall prescribe a reasonable maximum rate. Such finding of the board shall in a judicial proceeding against the railroad company be considered as *prima facie* evidence of the unreasonableness of a rate higher than that prescribed by the board."

The Wisconsin Commission. — It was in Wisconsin, when U. S. Senator R. M. La Follette was governor, that the full solution was first reached. In that state, in 1905, W. H. Hatton was chairman of the committee on transportation in the state senate. He laid down the principle "that it was as much the duty of the state to furnish transportation facilities as it ever had been to make roads or build bridges, and that if the function was delegated to any one, it was the duty of the state to regulate it so that the agent should be required to furnish adequate service, reasonable rates, and practice no discrimination."¹ Senator Hatton further said regarding the proposed bill to accomplish the above: "I want this procedure so simple that a man can write his complaint on the back of a postal card, and if it is a just one, the state will take it up for him."²

We have here enunciated the two principles now generally recognized as applying to public utilities, regulation so as to get reasonable rates and no discrimination, and machinery so simple as to give justice to all.

The act passed by the Wisconsin legislation gave the commission the power of regulation regarding rates, service, and discrimination, for railroads and correlated organizations, such as refrigerator lines, sleeping car, and dispatch companies. In the regulation of service the power of various state commissions had been gradually extended, and the Wisconsin bill merely carried this phase of the matter to its

¹ "The Wisconsin Idea," Charles McCarthy, p. 39.

² *Ibid.*, 41.

logical conclusion. The first fundamental new point of the law was that while the onus of fixing the rates rested upon the railroads, the commission could investigate by its own initiative or by complaint any rate or charge; and if the same was found to be unreasonable, the commission could order a new rate, which new rate must be substituted for the old one. Thus, the commission was given a possible task. It was not assigned the task of at once fixing all rates, but the task of readjusting unreasonable rates.

Power to
adjust rates.

The second fundamental principle of the law was that the alterations of service and rates were accomplished by the commission without cost to the complainant; and thus justice was as certainly obtainable by the man who had imposed upon him an excessive charge for shipping a single article as by a great corporation. There was no escape from the decision of the commission by the railroad except by an appeal to the court; and the appeal was against the commission, not against the individual who made the complaint. As a matter of course both complainant and defendant had full opportunity to present their cases in public hearing before the commission in advance of action.

The power
of the com-
mission
secures
justice.

The third important principle introduced into the law was that, in case of appeal, the burden of proof that the order of the commission was unreasonable was upon the appealing railroad. Still further, if evidence was introduced into court which did not come before the commission, the court was obliged to stay its proceedings and remand the case to the commission for a rehearing, thus preventing the holding back of evidence by the corporations to discredit the commission.

New evi-
dence.

All the provisions of the bill were such as to make the powers given the commission lie within those which may be delegated by a legislature. The legislature is to make the law; is to lay down the rules which control; the commission does nothing but administer the law; the commission cannot legislate, but it can make regulations under the rules of law formulated by the legislature. In this Wisconsin bill we have fully fledged the administrative commission. Its

Regulation
under rules
of law.

regulations are sometimes called administrative law as opposed to legislative law.

Following from the powers and duties of the commission, there have come many corollaries. In order to determine just rates, it has been necessary to make a physical valuation of the public utilities. In the valuation of the properties, both physical and good will, it has been necessary to use trained experts, both in engineering and in economics.

The powers of the railroad commission of Wisconsin were by three laws in 1907 extended to apply to all public utilities within the state. In the same year a comprehensive public utilities law along somewhat different lines was passed in New York, that state being divided into two districts, one including New York City and the other the remainder of the state.

This principle of control of public utilities through commissions, first put into full force in Wisconsin and New York, has been accepted by a number of other states.

The Interstate Commerce Commission. — Just as the states have undertaken the control of public utilities for intrastate business, the United States, by the interstate commerce act of 1887, has instituted a system of control for interstate commerce. This act creates a commission of five members, later increased to seven, appointed by the President, who hold office for six years. The original act applies to railways and to boats engaged in the transportation of passengers or property when the same is interstate. Violations of the act are made a misdemeanor punishable by a heavy fine for each offense. Unreasonable charges, unjust discrimination, and unjust or undue preference to some particular person are all illegal. Railroads must afford all reasonable and proper facilities for the interchange of traffic, and discrimination in the rates through such connection is prohibited. The law provides for the posting of schedules and requires advances of the same to be preceded by ten days' notice. No variation from published rates are to be permitted. All schedules are to be filed with the commission.

The commission has power to inquire into the manage-

Charges to
be reason-
able.

ment of the business of common carriers and to obtain full information concerning them. Any person sustaining damage may make complaint to the commission or bring a suit in his own behalf in the District Court or Circuit Court of the United States; but he cannot do both. If complaint is made to the commission, this organization will investigate; and if the complaint is well founded the commission will recommend that reparation be made.

The chief defect of the law of 1887 was that the commission was a purely advisory body. Further, the commission was not given sufficient appropriations to make investigations upon which to determine whether charges were reasonable. Notwithstanding these limitations, the rebate evil was reduced, and a great number of cases were satisfactorily adjusted without going into court.

In 1906 and 1910 the interstate commerce law was amended. It now applies to all common carriers engaged in interstate commerce and also to companies engaged in communication, such as telephone, telegraph, and cable. In 1906 was given the power to fix maximum rates, and in 1910 to suspend increase of rates pending investigation. The charges both in transportation and communication are to be just and reasonable; unjust and unreasonable charges are declared to be illegal. A charge for a short haul shall not exceed the charge for a longer distance over the same road, provided that the Interstate Commerce Commission may grant relief in special cases.

All public
utilities
included.

Whenever the charges are found unjust or unreasonable the commission is authorized and empowered to determine and prescribe what will be a just and reasonable rate. Increases in rates must first be passed upon by the commission, and the burden of proof is upon the carrier to show the reasonableness of the advanced rate. If the carrier fails to comply with an order of the commission, the complainant may sue the carrier in the Circuit Court, where the finding of the commission shall be *prima facie* evidence against the carrier. Also the Interstate Commerce Commission may appeal to the Commerce Court for the enforcement of its order.

Power to
regulate
rates.

The amendments adopted gave the commission the necessary authority to make the interstate commerce law effective; and many decisions have been rendered declaring rates to be unreasonable, and reasonable rates have been fixed. In many cases railways have been found guilty of discrimination, orders have been given for such discriminations to cease, and proper damages have been awarded. In numerous cases where the joint rates exceeded a combination of the different local rates, the joint rates have been reduced so as not to exceed the combined local rates. Special rates have been declared to be unlawful; and unfair regulations, the effect of which is to favor some shipper (in one case the Standard Oil Company), have been abated.

At the same time the last amendment was passed giving the Interstate Commerce Commission power to regulate rates, a Commerce Court was created. This court has exclusive jurisdiction of all cases arising under the interstate commerce act "otherwise than by adjudication and collection of a forfeiture or penalty or by infliction of criminal punishment, or any order of the Interstate Commerce Commission than the payment of money." The pendency of a suit in the Commerce Court does not in itself stay or suspend the operation of an order of the Interstate Commerce Commission; but the Commerce Court may at its discretion suspend such order pending final hearing or determination of the suit. There may be appeal from the Commerce Court to the Supreme Court of the United States, and such cases are to have priority except over criminal cases. Complainants interested in a case before the Commerce Court have the right to appear and may be made parties thereto.

Of the cases of appeal from the Interstate Commerce Commission to the Commerce Court, there have been many affirmations and also many in which the orders of the Interstate Commerce Commission have been temporarily suspended or reversed.

In some instances, charges which the commission declared to be unreasonable have been declared to be reasonable by the court. In other instances where charges have been de-

Effective-
ness of law.

Commerce
Court.

clared to be unreasonable by the commission, the court has declared that the order was based upon insufficient evidence. In one case a through railway rate had been lowered until it met a combined rail and water rate. This resulted in the railway getting the major part of the business, so that the water competition was eliminated. The higher rate was then resumed. In this case the commission condemned the advance in the rates as unjust and unreasonable; but the Commerce Court held that there was not sufficient evidence to sustain this finding. This decision is of great consequence, since the method that the railway pursued is that which has been frequently followed to drive out water competition, — viz., lowering rates until water competition is destroyed, then raising the rates and taking increased profits.

Decision likely to eliminate water competition.

In another case the Commerce Court held that the commission exceeded its authority when it laid down a hard and fast rule to apply to a large part of the United States in regard to the long and short haul clause. Finally, the Commerce Court has held that its jurisdiction extends to those cases in which orders are for the payment of money only. In one class of cases the court has gone farther than the commission. It was held by the commission that the complainant could not recover the excess charges exacted by unreasonable rates previous to his complaint to the commission; whereas the court held that the complainant could recover from the time the unreasonable rate was inaugurated.

Some of the chief differences between the commission and the court are as follows: The commission holds that the court has no right to review the orders of the commission concerning charges, except such orders as are confiscatory; whereas the court holds that it may review the action of the commission as to the reasonableness or unreasonableness of charges.

Right of review.

The Commerce Court held that the commission has no right to require information concerning intrastate business, since the same is not interstate commerce. Probably this is the decision of the court that has most hampered the commission in that it made it impossible for the commission to obtain information concerning intrastate business. Without

Commission hampered.

this knowledge the commission found it very difficult to determine the reasonableness or unreasonableness of interstate rates, since the reasonableness of a charge for a given class of business is dependent as one factor upon the entire business done by the road. Fortunately this decision of the Commerce Court has been reversed by the United States Supreme Court. At this writing the other important differences between the commission and Commerce Court is still pending in the Supreme Court.

General Statements.—From the early public utilities commission of the sixties almost every proposal to create a commission or to extend its powers has been denounced as wildly radical, as socialistic. It has been said that if the laws proposed were passed, we might as well at once go to the socialistic doctrine and have business carried on by the government. The officers of the public service corporations clearly foresaw that the commissions meant sooner or later the destruction of the principles of imposing rates that the traffic would bear and the attitude, “the public be damned.” Also with this appreciation by them there was undoubtedly an honest fear on the part of many that their properties would be unjustly raided; but the old situation was intolerable. The public service corporations and the people were at war; and under conditions of war there was rancor and distrust on both sides, an obstinate determination on the part of the railroad companies to resist every encroachment in the matter of control and determination on the part of many of the people to find a weapon by which they might smash the corporations.

In a half dozen years this state of mind both on the part of the owners of the public utilities and upon the part of the people has largely disappeared. Where before we had war, we now have peace.

Those who have studied the orders of the commissions to the public utility corporations know that commission rule, upon the whole, results in reasonable requirements regarding service and rates. If an unreasonable rate be imposed, there

is appeal to the courts; and if the corporation can show that the rate imposed is confiscatory under the 14th amendment of the United States Constitution, the order of the commission will be reversed by the courts. To bring a suit in court imposes no especial hardship upon the railroads, since these great corporations have the money to carry their cases to the highest courts of the land. In consequence of the adequate, indeed unique, protection which property possesses in this country under the 14th amendment, as compared with any other country, some orders of the commissions have been reversed and property has been completely protected.

Protection of property rights.

The commissions, as a matter of pride, desire to avoid having their orders found unreasonable, desire not to have them found to be of a kind which confiscate property; and thus the commissions upon the whole have been conservative in their actions in the lowering of rates.

If there be any advantage upon either side through commission rule, it is with the corporations. Notwithstanding this, the people know that the weakest one of them is no longer subject to unjust discrimination which would ruin his business; he is certain that his stronger competitors are not directly receiving rebates and drawbacks; he is certain that his rates are not exorbitant; he accepts the situation even if he thinks the rates are somewhat high.

In making the above statement it is not meant to say that everything is all that could be desired. This state of affairs never will be reached in a progressive, industrial democracy. So long as the conditions are dynamic rather than static, no one will ever be completely satisfied. Many of the more important railroad men, in private, make complaint of some of the orders of the commissions, both state and interstate, because of what they regard as their too theoretical character due to lack of knowledge of practical difficulties involved in executing the orders. There are complaints as to divisions of cost between freight and passenger traffic; there are complaints of orders regarding stations, frequency of service, etc. Upon the other hand some of the people complain that, because of the protection of property under the 14th amendment,

Complete satisfaction unattainable.

the commissions have been too conservative and that the rates have not been sufficiently reduced; that adequate service has not been secured. That each side should unduly stress its own point of view and not see with perfect fairness the point of view of the other side is natural, indeed inevitable. But neither side would go back to the old condition of affairs. The wiser railroad men would far prefer to be under commissions than to be under blackmail through holdup bills at every session of many state legislatures. The pressure of these holdup bills was so great that many a railroad man in high position and of unquestioned business standing has felt it necessary in the past to bribe legislatures. No longer does this extremely distasteful, disgraceful, and unlawful performance generally exist. On the other hand, while the people may not be completely satisfied, they realize that they are far better off than when rebates and drawbacks existed, when there was discrimination between men and discrimination between different localities.

Perfect contentment we shall never have; but the results achieved in the control of public utilities by the administrative commissions are so great that we may be sure that from this time on the steps will be forward rather than backward in commission control of public utilities. The fundamental principle of regulation of the public utilities by commissions is substantially sound. It remains only to extend the principle worked out to the remaining states of the country and develop details necessary for the perfection of the method of control.

So satisfactory upon the whole is the situation that, as already pointed out, the people accept with equanimity the principle of coöperation among the public utilities. Everywhere the latter coöperate in fixing rates so as to prevent destructive competition. No officer of any state or of the United States thinks of bringing suit against the public utility corporations for violation of the antitrust acts, although they are as flagrant violators of these laws as any in the United States. In short, the administrative commission has secured for the public utilities reasonable justice to all and by common consent has permitted coöperation.

Movement
forward.

Coöperation
accepted.

SECTION 3

PURE FOOD AND DRUGS LAWS

At the same time that one class of commissions has arisen to control charges and service of public utilities, another class of administrative body has arisen to control the quality of commodities. As we have seen (pp. 74-78), the dogma of competition is that it is to control quality and price. For the industries, we have further seen that in controlling quality competition has been an unqualified failure; indeed, so disastrous was the failure and so menacing to public welfare, especially with reference to health, that the great majority of states have passed pure food laws, under which it is necessary for the label to tell the truth concerning an article. These laws prevent the introduction into food of preservatives inimical to health and prevent the adulteration of foods, drinks, and drugs.

Failure of competition to secure quality.

The states and possessions having pure food laws include the following: Alabama, 1907; Alaska, 1906; Arizona, 1906; Arkansas, 1907; California, 1907; Colorado, 1907; Connecticut, 1907; Delaware, 1907; Florida, 1907; Georgia, 1906; Hawaii, 1903; Idaho, 1905; Illinois, 1907; Indiana, 1907; Iowa, 1906; Kansas, 1907; Kentucky, 1908; Louisiana, 1906; Maine, 1907; Maryland, 1910; Massachusetts, 1882; Michigan, 1881; Minnesota, 1905; Mississippi, 1910; Missouri, 1907; Montana, 1907; Nebraska, 1907; Nevada, 1909; New Hampshire, 1907; New Jersey, 1907; Ohio, 1904; Oklahoma, 1909; Oregon, 1907; Rhode Island, 1908; Philippines, 1906; New Mexico, 1906; New York, 1909; North Carolina, 1907; North Dakota, 1907; Pennsylvania, 1907; Porto Rico, 1906; South Carolina, 1907; South Dakota, 1907; Tennessee, 1907; Texas, 1907; Utah, 1903; Vermont, 1907; Virginia, 1908; Washington, 1901; West Virginia, 1907; Wisconsin, 1903; Wyoming, 1907.

It is noticeable that with two exceptions these laws were formulated from 1903 to 1910. The salient point in connection with the present discussion is that for each state having

The admin-
istrative
commission.

pure food laws, special administrative officers are assigned the duty of their enforcement. These officers may constitute a commission or a board. The duty may rest upon a single designated individual, in a number of instances called commissioner.

United
States pure
food law.

The same principles which were first applied within the states in the control of quality through commission was recognized by the United States when the pure food law was passed for interstate commerce in 1906.

This law makes it a misdemeanor to manufacture adulterated foods or drugs or to misbrand same or to sell adulterated or misbranded foods or drugs; it provides for examination of products upon the market by the Bureau of Chemistry; it provides that the secretaries of agriculture, of the treasury, and of commerce and labor shall issue rules and regulations for the enforcement of the act; the violation of these rules is to be punished by fine or imprisonment or both. Misbranded or adulterated foods or drugs are to be condemned.

A meat inspection amendment was added to the pure food laws providing for the inspection of all slaughtered carcasses. This amendment applies both to commerce between the states and between the states and foreign countries. Before passing any carcass it is to be found in a healthy and sound condition. This work is to be done by the Department of Agriculture.

Regulation
under rule
of law.

In general, the pure food laws, both state and national, lay down the general principles to be obeyed; the commissions or other administrative officers formulate definite detailed regulations under the general rules of law. These pure food officials have created laboratories for analyses of foods and drugs; they send their investigators to the various parts of the country to ascertain whether the laws are being complied with. They issue necessary orders in connection with their duties. In short, they are administrative bodies having imposed upon them the duty of seeing that the laws for the protection of the public regarding quality are complied with. Finally, the pure food officials may prosecute in the courts for failure to comply with the regulations issued.

Under the theory that competition would regulate, the public would have remained without protection. Had it not been for the creation of the administrative officials to enforce the quality laws, the only redress of the injured individual would have been to take his case to the courts. In the majority of cases the damage was small and an injured individual could not afford to do this. Just as with the public utilities, redress should be obtainable without expense to the individual. The situation was saved by the recognition of legislatures and Congress at the time they made the pure food laws, that they must create administrative officers to enforce them.

Redress
without ex-
pense to the
individual.

Just as there was resistance by the railroads and other public utility corporations to commission form of control and the principle was established only as a result of many years of severe contest, so there was prolonged and determined, indeed fierce, opposition by many of the manufacturers to the pure food laws. There was great commercial gain by exploiting the public through deceit, and this advantage they were determined not to lose. Resistance was so powerful that it was only when there was an aroused public sentiment in favor of the passage of the laws that the states and finally Congress enacted the same.

Resistance
to pure food
laws.

A case of most determined resistance was that of meat. False brands were used; the conditions in some of the abattoirs were unsanitary; diseased meat was sold. The packers opposed bitterly the necessary inspection to secure wholesome meat. The public was of no consequence as compared with increased gain. Meat inspection was so strongly resisted that the law as finally enacted by Congress was only gotten through by the government taking upon itself the cost of the inspection.

The public
sacrificed
for gain.

Even to the present time there is determined resistance by some manufacturers to the execution of the laws, and pressure is brought to bear upon the Department of Agriculture to suspend or modify its rulings. Other wiser and more public-spirited manufacturers are cheerfully conforming, indeed assisting, in the enforcement of the pure food laws. In general the revolution has taken place and a new situation exists. This

being so, it seems almost unthinkable that the nation was allowed to be exploited for so long a time by the unscrupulous manufacturers who wished to gain through deceit at the expense of the public.

SECTION 4

THE CREATION OF TRADE COMMISSIONS

Following the inductive method, and taking steps in advance with the greatest care only as justified by the experience of the past, is not the conclusion inevitable from the evidence presented in the previous section that the machinery which has been applied so successfully to the control of public service corporations and to the control of quality so far as essential articles are concerned, should be applied to the great industrial corporations? The failure of the competitive system for the adequate control of the price and service for public utilities and quality for manufactures cannot be gainsaid.

The thesis is presented that commissions should be created to control industrial corporations affected with a public interest just as they now control the public service corporations, as they control quality in industry.

That some method of administrative control for the combinations must be created is shown by the case of the American Tobacco Company, in which the inferior court in coöperation with the Attorney-General undertook extraordinary administrative work of a new kind and to which the court is not adapted. (See pp. 183-187.) Regarding the dissolution of the American Tobacco Company, the Attorney-General said the problems involved were economic rather than legal. He adds: "But neither the courts nor the department of justice is properly equipped to work out such problems save in exceptional cases." He points out that in the particular instance in which a complex economic duty was imposed upon the court, it so happened that the Bureau of Corporations had made an elaborate investigation and had the facts in its possession necessary to base a plan for carrying out the decree. The bureau was called upon by the Attor-

Control by
trade com-
missions.

Courts not
adapted to
control.

ney-General for the *extra-official* duty of advising him regarding the manner of disintegration.

The Attorney-General suggests that the duty of the bureau might be enlarged so as to include investigations and reports upon plans for disintegration of monopolistic combinations, which either voluntarily or by pursuance of decree are adjudged to be in violation of the antitrust act. He further suggests that the bureau might be availed of as the nucleus for "an administrative board under whose supervision consolidations or mergers for lawful purposes might be formed." This proposal is a first step in the direction of that which is herein made that administrative commissions should be created upon which should rest the duty of supervision of combinations which exist in restraint of trade. To combine the duties of the commissions with the courts, as suggested by the Attorney-General, would be most unfortunate; since of necessity the courts must remain the body to which appeals may be made from the commissions. The duties of administrative commissions and the courts should be kept wholly distinct.

Administra-
tive com-
mission.

SECTION 5

PROPOSED MINIMUM AMENDMENTS TO ANTITRUST LAWS

To accomplish control of combinations through administrative commissions, it will be necessary to make the following amendments to the antitrust laws:—

(1) *Business of a Public Interest.* — The law should declare that businesses which restrain trade to such a degree as to control the market by that fact becomes of public interest. No one can doubt that the greater corporations are just as much affected by public interest as are the railroads. The United States Steel Corporation, Standard Oil Companies, and the American Sugar Refining Company, producing commodities, some of which are required by the larger portion of the population, have relations to the public as a whole. This principle has already been recognized by some common law decisions; and, in consequence, one class of business which earlier was regarded as purely

Great cor-
porations
public utili-
ties in fact.

private has become a public utility. Elevating grain, as a result of a long contest, was declared to be affected with a public interest, and therefore to be under the same obligations as other public utilities.¹ In the case of *Munn v. Illinois*, Chief Justice White, speaking for the court, said: "Property becomes clothed with a public interest when used in a manner to make it of public consequence, and affect the community at large." Judge Vinje, of Wisconsin, in discussing this matter, summarizes the conclusions of the United States Supreme Court in the following words: "We find that private property or business becomes affected with a public interest when used or carried on in a manner to make it of public consequence, and affect the community at large, and when thus affected such property or business becomes subject to legislative control in all respects necessary to protect the public against dangers, injustice, and oppression."²

Therefore we have but to apply the principle of law already recognized by the United States Supreme Court to businesses which exist in restraint of trade. Indeed, in the case of Oklahoma, this principle has already been embodied into statute law in most comprehensive terms. In that state, whenever any business by reason of its extent or by virtue of monopoly is such as to make it of public consequence or to affect the community at large in reference to supply and demand or price, such business is declared to be a public business and to be under control of the state through the Corporation Commission or by an action in any district court of the state (see p. 195). Thus existing common law and statute law for one state are in accord with the principle here advocated. It remains only to embody the principles enunciated into statute law for the several states and for the nation.

(2) *Coöperation Reasonable*. — The law should define reasonable restraint of trade in such a manner as to permit coöperation. Regarding the extent to which coöperation should be permitted, there will doubtless be difference of opinion;

¹ *Munn v. Illinois*, 94 U. S. 113; *Budd v. N. Y.*, 143 U. S. 517.

² "The Legal Aspects of Industrial Consolidations," Reports of Wisconsin State Bar Association, Vol. VI, pp. 159-181.

Great business affects community at large.

Big business of public interest.

but, as already indicated, the most logical place at which to stop is the point fixed by the common law principle, and declare restraint of trade unreasonable that gets to monopoly. To make the law exact it should declare any corporation which, with its subsidiary companies, controls a definite percentage of the business a monopoly (see p. 227). This is in accordance with the proposal recently made by Mr. W. J. Bryan, who mentions 50 per cent in this connection. The difference between the view of Mr. Bryan and the position taken here is that he apparently regards this regulation alone as sufficient to insure competition, and he believes in the adequacy of the control of business by competition. If the meaning of the court in the decisions regarding Standard Oil and Tobacco are that undue restraint of trade means restraint of trade which extends to monopoly (see pp. 181-187), then the only additional point embodied in the above proposal beyond existing law is that monopoly be definitely defined.

Reasonable
coöperation
does not
permit
monopoly.

However, amendments to the law must extend beyond the proportion of business if coöperation be permitted in prices, outputs, etc. ; for, as shown by the decisions of the federal and state courts, coöperation, except to a very limited degree as to time and space, is under the ban of the law as it now exists.

In this connection it should be mentioned that it has been proposed as a solution of the problem of combination that the amount of business which one company may control shall be reduced to a relatively small fraction. Some have said that no one corporation should be allowed to produce more than ten per cent of a product. Others would limit the capitalization of a business ; and this is another way to accomplish the same purpose.¹ Even if the limitation were severe regarding portion or capitalization, it would still be possible for the corporations to coöperate, secretly or openly, and thus act substantially as a unit. Indeed, at the present time we know that there are many more than ten companies engaged in the same business coöperating in various ways in its control. Therefore the limitation of amount of business alone or of capitalization is wholly futile. If coöperation be permitted,

Futility of
limiting cor-
porations to
small frac-
tion of
business.

¹ Hearings, Senate Interstate Commerce Committee, Part XX, p. 1593.

and that it should be seems to me to have been established, the coöperating units must be under the supervision of some authority in order that the public may secure fair treatment.

(3) *Competition to Remain Free.* — The law should declare any restraint of trade unreasonable which does not permit free competition. While reasonable coöperation should be possible, no coöperation should be permitted which in any way prohibits another person or corporation from freely entering a business. Similarly coöperation of labor should be under the same supervisory authority as coöperating capital.¹

(4) *Unfair Practices should be Prohibited.* — In the enumeration of unfair practices to be prohibited, there doubtless would be difference of opinion. One enumeration is given, pp. 225–226.

General Statements. — But how are these proposed rules of law, state and national, to be enforced? Clearly, if the argument to this point be sustained, — by the creation of trade commissions, both national and state, an interstate trade commission to control interstate industrial commerce and state commissions to control intrastate commerce. Court procedure would be as futile to secure the enforcement of the above rules of law as it has been with the existing laws; but commissions granted the broad powers to enforce these rules of law, being administrative bodies, able to take action without complaint, and acting on complaint without expense to the complainant, may be reasonably expected successfully to enforce the proposed laws.

It is not necessary again to give in detail the powers which these trade commissions should have, since in general they should be the same for the industries as those already existing for public utilities. (See pp. 233–244.)

These powers should be ample to enforce all the above provisions. Penalties should be provided for violation of the principles enunciated. The findings of a commission should be accepted as *prima facie* evidence of their correctness and

¹ Hearings, Senate Interstate Commerce Committee, Part XIX, S. P. Bush, pp. 1642–1644.

should go into effect at once. In case of appeal to the courts no new facts should be introduced, provided same could have been presented to the commission. If material facts are brought forth, which for any reason could not have been presented to the commission the case should be remanded to the commission for a rehearing. In this way it will be possible to prevent withholding evidence when a case is before the commission in order to get the same into the court.

There is no question that the creation of trade commissions to administer the general principles enacted by Congress and state legislatures would be legal and constitutional. It is to be noted that the principles of law suggested are stated in broad and simple terms, the idea being to leave the formulation of detailed regulations to the commissions. Thus the law should forbid unfair practices, but the specific unfair practices should not be enumerated; this would leave it to the commission to stipulate those practices which are unfair. By this procedure the list of unfair practices and their definitions could be modified from time to time as the exigencies demand; whereas if the unfair practices were enumerated in detail in the statutes, there would be sure to arise situations which are not adequately covered.

Similarly, regarding coöperation, the law should merely prescribe that reasonable coöperation is allowable, and the commission should work out details as to what is permissible under the rule.

Again, under the rule of law laid down by the courts prohibiting monopoly, the matter of deciding whether a given corporation falls under that rule should rest with the commission. Not only so, but if a corporation be found to be a monopoly and therefore to be unreasonably in restraint of trade, the commission should give the orders as to the modifications of the business which are necessary so that the corporation shall cease to be a monopoly. Such orders might go to the extent of disintegration of the existing organization, if the monopoly be such that the public interests cannot be adequately protected without such action.

The above provisions present an irreducible minimum to which the antitrust laws, state and national, must be amended in order to secure freedom of competition, freedom of coöperation, destruction of monopoly, and justice to all. If such a program be adopted, the first conservative fundamental step will have been taken to stop the present perfectly futile attempts to regulate concentration of wealth by destructive litigation, adequately to protect any corporation entering a business, and at the same time, to give protection to the individual and to the public.

It should be noted that the plan to this point permits coöperation to no greater extent than is allowed in England and Germany. Indeed, coöperation in Germany, as is shown by the steel combination, is allowed to go to the extent of monopoly, and in this has the protection of the courts; although if the prices were made so excessive as to excite general complaint, it would be possible for the courts to order a modification of the combination as being contrary to public policy. No disastrous consequences have come in those countries because of the ability of their business men and manufacturers to coöperate. Indeed, there is general agreement in these nations that the gains from coöperation are far greater than the disadvantages of the unrestrained competitive system.

The proposal made does not permit coöperation to go to the extent of monopoly, as is allowed in Germany. Furthermore the coöperation which is allowed to exist in restraint of trade is under the supervision and regulation of an administrative commission, and therefore the proposal made is a much more conservative one regarding recognition of concentration of industry than exists in England and Germany.

SECTION 6

FURTHER EXTENSION OF POWER OF COMMISSIONS

While the above is a minimum program, adequate grounds can be adduced for further extending the authority of the commissions. If this be done, it will be necessary to enact

additional principles into law, which have been mentioned in the specifications, given pp. 225-231, as desirable. The additional points will be enumerated in the order in which they are likely to be acceptable to the public, not in the order of their importance.

(1) *Publicity Required.* — All corporations which exist in restraint of trade should be subject to full publicity. For any one of them the public should know the amount of outstanding stocks and bonds of each class; it should know the physical valuation of the property; it should have full information concerning the conduct of the business, including the amount of the profits which goes for improvements, depreciation, sinking fund, and dividends. In short, for each corporation allowed to coöperate with others, the public should have full knowledge of all of the facts necessary to pass a judgment upon the nature, extent, and effects of its business.

If this principle be agreed to, the requisite amendment to the antitrust laws should include another clause stating in broad terms that the commission has full power of investigations, including access to the books of the company, with authority to make public any facts concerning the business which are regarded by the commission as having a public interest.

(2) *Regulation of Prices.* — While the above provisions will make a great advance over the present situation, it is by no means certain that they are sufficient to protect the public in the matter of fair prices. Turning again to the commissions regulating public utilities: they were first given various powers regarding service, publicity, etc.; but the public was never adequately protected until they had authority to regulate prices, not the responsibility of fixing prices, but the authority to order modification of prices upon complaint or by their own initiative. I am aware that at this point there will be great difference of opinion; therefore I have carefully refrained from including it as an essential part of the proposed remedial plan. But it is inevitable that sooner or later the logic of events will demand

Reasonable prices must be maintained.

that the rule of law be made that all coöperating corporations which control the market shall charge reasonable prices. Under this simple rule of law the commission will be directed to see that such reasonable prices be maintained. If this principle can be agreed to, the situation is adequately covered; for if an unreasonable price be charged, the commission will have authority to fix maximum and minimum prices as is required to make the price reasonable.

Fixing of price in early times.

In justification of this principle it may be said all that it is necessary to do is to apply the practice of the past concerning monopoly prices to the present situation and to place the enforcement of this rule of law with the commission rather than the court. In early historical times, indeed until the nineteenth century, transportation was so poorly developed, that it was possible to have monopoly in a relatively small area. Even in a township or county, the difficulties in transportation were sometimes such that it was not easy to carry needed articles from one place to another, and an individual, or two or three individuals, might have monopoly for some product essential to the community. Under these circumstances, it was wholly natural that the control of monopoly should have been a function of the state — it was so under Roman law and under the common law of England. Control went so far as to regulate prices. This was very common in Rome. In England, prices were fixed by law at different times for many commodities; among these were books, beer barrels, coal, wheat, rye, bread, and labor. In Massachusetts the revised laws of 1649 limited the prices of wages, freight, ferryage, mill tolls, wharfage. In both Massachusetts and New York the scale of wages was fixed for farm laborers, mechanics, and teamsters. Many other illustrations of fixing prices could be given.

These laws show with perfect clearness that the public has a right to a fair price; that in this matter as in others "the welfare of the people is a supreme law." Whenever it becomes advisable for the welfare of the people that the state authority be invoked to regulate prices, this may be done. The question of so doing is merely one of expediency.

The right of state regulation of prices is beyond question.¹ It has merely been suspended for a time because inexpedient to exercise it.

With the modern development of transportation, it became more difficult to maintain monopoly; the competitive factor became more important; and it was less necessary for prices to be controlled by regulation. By the beginning of the nineteenth century, with minor exceptions, this country had gone over to the theory of the regulation of prices by competition. As we have seen, during the nineteenth century we had a period in which the system of letting everybody alone, of freedom of competition, was our faith. If we could only get free competition, we believed, we should have the remedy for our ills, so far as prices were concerned.

Regulation
of prices by
competi-
tion.

But as we have seen with the great development of transportation and concurrent concentration of industry during the latter half of the nineteenth century and especially during the last twenty-five years, conditions have recurred for large sections of the country similar to those which obtained in the smaller community during the early history of the nation. The factors which have led to such concentration have been discussed, pp. 8-31. Concentration has gone far for all industries; and at the present time for many important commodities has gone to the extent of monopoly, either through a single corporation or by the coöperation of a number of corporations. Staples in which the monopolistic factor clearly enters are steel, sugar, oil, anthracite, beef, tobacco, matches, shoe machinery, electrical appliances, and many others. For some of these commodities a single corporation controls from fifty per cent to as much as ninety per cent of the product.

As has been fully shown (pp. 77-78), not only where monopoly exists, but where there is coöperation far short of

¹ "Government Regulation of Prices," Eugene A. Gilmore, *Green Bag*, 1905. Address before the Illinois State Bar Association, Charles Carroll Bonney, *American Law Review*, Vol. 25.

Excessive
prices where
there is
monopoly.

monopoly so far as any one organization is concerned, prices may be maintained by mutual understanding, without regard to whether such prices are reasonable or unreasonable; simply with reference to the dividends which may be secured by the corporations. It is believed by many, if corporations are made subject to publicity, that they will not dare to charge unreasonable prices; but the public should place no confidence in this conclusion, and therefore should place the power with the commissions to make orders regarding prices in such cases as in fact they are found to be unreasonable.

Excessive
profits.

It is safe to say that under court enforcement of laws against trusts and combinations, the prices charged by single companies or companies working in coöperation have been such as to give unreasonably large profits. This has been shown to be true for some of the corporations, facts concerning which are given (pp. 104-150). In order to reinstate the matter in the mind it may be recalled that the Commissioner of Corporations says that in the United States Steel Corporation, upon the actual investment, from April 1, 1901, to December 31, 1910, the profits have been twelve per cent per annum. Since the bonds bear five per cent, this gives a much higher rate of profit than twelve per cent upon that part of the stock which represented substance and not water. The Commissioner says that the earnings have been so great that the company has been able to put back into extensions and improvements, into the sinking fund, and into the treasury together, from the net earnings, the colossal sum of \$435,000,000. This is in addition to the dividends which have been declared on the stock, including both substance and water, and the interest on the bonds.¹ Again, the profits of the American Tobacco Company, according to the Commissioner of Corporations, have increased with amazing rapidity, and in 1908 were \$40,000,000 upon an investment of \$240,000,000, or nearly seventeen per cent. In addition to the net profits declared, enormous

¹ Summary of Report of Commissioner of Corporations on the Steel Industry, Part I, p. 49.

returns have been derived from the inflation of securities.¹ Further, it has been seen, when the element of monopoly entered in the American Sugar Refining Company and the Standard Oil Company, the margins for manufacture were increased so as to give enormous profits. The Commissioner of Corporations says that the dividends of Standard Oil, from 1882 to 1906, averaged above twenty-four per cent, and the profits due to the increased margins were more than \$200,000,000. The total profits for three years were about \$790,000,000 upon an investment of not more than \$75,000,000. Thus in fifteen years the profits have been more than ten times the capital originally invested.²

In view of these and similar facts regarding other corporations, it seems unsafe to believe, if coöperation be permitted, that the corporations will have so great a change of heart as to treat the public fairly. If coöperation be permitted, with this must go control, else the public will be without protection. It is perfectly clear under modern conditions that the determination of prices by legislation is an impossible task. However, as already indicated, under the clear legislative right to control prices, Congress and state legislatures may enact the rule that prices shall be reasonable, and authorize administrative commissions to regulate prices under this rule. The reserve power to require modification of unreasonable prices should be placed with the commissions.

With co-
operation
must go
control.

In this connection it is notable, for the potash industry in Germany, where complete monopoly is allowed, that this industry is placed under control of a commission with authority to regulate prices. Therefore, at the present time in Germany the plan of regulating prices by commission is in operation for one industry.

It may be said that the burden of controlling prices will be so great that it cannot be performed by commissions. Precisely the same statements were made regarding rail-

¹ Report of the Commissioner of Corporations on the Tobacco Industry, Part II, pp. 310-313

² Report of the Commissioner of Corporations on the Petroleum Industry, Part II, p. iv.

Control of
prices a
practical
problem.

roads when it was proposed to control prices of public utilities by commission. It may be asserted, without fear of successful contradiction, that there is no problem of adjustment of prices more difficult than that of freight rates. Different rates apply to different classes of commodities; rates are variable under different conditions of shipment, such as quantity, distance, etc. Furthermore in fixing the price on freight it must be made reasonable; and this can only be determined by finding the valuation of the enormously complex and variable class of railroad properties, taking into account the extremely complicated business operations. Notwithstanding these difficulties, which by the railroad men were declared to be absolutely insuperable and impossible to perform except by the experienced railroad man, the commissions have been, if not wholly successful, at least reasonably so. Therefore, the arguments regarding the impracticability of regulating prices by commission falls to the ground. It is not to be presumed that every price would be regulated all of the time; quite the contrary; only exceptionally would prices be regulated by the commissions. Whenever a complaint is made that the market is controlled and a price is unjust, then a commission would investigate and make an appropriate order; or if a commission reached the conclusion that a case needed investigation, it could do this on its own initiative.

Maximum
and mini-
mum prices.

It should be emphasized that it is not proposed that the commission shall have the power to regulate all prices, but only this power where there is monopoly or the market is controlled through coöperation. Also a commission need go no farther in a given case than to fix a maximum price or a minimum price, or both, as may be required by the situation, leaving competition to regulate further within the prescribed limits. As at present, competition would remain the sole regulative of prices in the vast number of instances where the market is not controlled. These qualifications enormously simplify the task of the commissions.

The very fact that the commissions have authority to regulate prices, when they become unreasonably high or

unreasonably low, would act as an important restraining force upon those controlling the market and tend to keep prices reasonable, and thus reduce the number of cases in which it would be necessary for the commissions to act. This power of the commissions, we know, has been a restraining influence with the railroads; it will be a restraining influence in preventing unreasonable prices if extended to the industries.

Thus, so far as we can foresee, the task of the commissions, which to some men seems dreadful, will in all probability turn out, as a matter of fact, just as with the railroad commissions, practicable. The misconceptions which arise in connection with controlling prices may be illustrated by statements made by Mr. William B. Hornblower.¹ He says it means "the right to control the prices of the necessities of life to the ultimate consumer. What the average American and his wife and children shall eat and drink and wherewithal they shall be clothed depend upon the prices to be paid for such necessities of life." Apparently Mr. Hornblower is appalled by the dread of the catastrophe; but who fixes the prices of these necessities now? The gigantic corporations certainly in large measure. It seems plain that the public would be safer if some organization, having responsibility to it, had a part in the process. The situation will, as a matter of fact, be substantially as it is at present, in the initial fixing of prices. The most that is proposed is that, whenever the market is controlled for any commodity, a commission fix maximum and minimum prices from time to time when prices are found not in accordance with the rule of reason.

Control of price by corporation or commission.

We may return to a state of subdivision of industry in which the economics of concentration are not available, and depend upon competition to control prices. If it were possible to secure "tolerant" competition, to use a phrase which has been proposed, under these conditions it is probable that the prices would be higher than they are with concentration, even with coöperation and without control.

¹ "Antitrust Legislation and Litigation," pp. 35 and 36.

Regulation
the only
way.

That we can return to such a condition contrary to the world-wide tendency is extremely improbable, almost unthinkable. The other alternative is to have large units; if we have large units, coöperation becomes inevitable; and with concentration and coöperation the prices unregulated will become unduly high. The only protection for the public is regulation in some way; and such regulation is best accomplished through a commission which has authority to place maximum and minimum prices at reasonable levels. This situation has been very clearly seen by Attorney-General Wickersham. He says: "If we permit the existence of organizations or combinations of producers under such conditions that they can fix prices, there is no means of securing justice to the consumer except through the government's asserting its right to step in and dictate prices, or at least to require that they shall not be raised above reasonable limits."¹

Regulation
not
socialism.

It has been repeatedly asserted that the proposal to give commissions authority to order prices to be changed, when found unreasonable, is socialism. Precisely the same statements were made when it was proposed to give the railroad commissions similar powers a few years ago. Socialism to the extreme conservative means anything with which he does not agree; but the meaning of socialism is the taking over and management of property by the state.

The plan presented does not involve taking over property or its management. Indeed, it does not involve anything whatever except securing to the public a reasonable price in the same manner that reasonable prices have been secured from the public utilities, the only way in which it has been found practicable to do this. It is probably the only satisfactory way in which fair prices can be secured from the great industrial corporations. Under the plan proposed the industrial concentrations remain private property in charge of those who own them just as at present. Being granted the privilege of coöperation in restraint of trade, they are forbidden to take advantage of the public by charging unrea-

¹ *Century Magazine*, Vol. LXXXIII, No. 4, p. 619.

sonable prices ; and if forbidden so to charge, there must be some organism which will enforce the prohibition. The prohibition probably could be enforced by lawsuit under common law ; and therefore the proposal made simply gives to an efficient administrative body authority to do what the courts probably have power to do under the common law, but which they could not efficiently perform. Those who hold up the boggy of socialism because of the modest proposal to allow commissions to regulate prices, if they reflect, must conclude that they have only a boggy.

(3) *Conservation Enforced.* — It should be made unlawful for any person, firm, or corporation unreasonably to waste or maliciously to injure, destroy, or impair any natural resource. This rule has been made a statute in Wisconsin.¹ Upon the commissions should be imposed the duty of requiring the enforcement of this rule for all corporations which exist in restraint of trade. Under this simple regulation the major portion of the great wastes of the natural resources under the competitive system (described pp. 89–97), so disastrous to the future of the race, could be prevented. The unnecessary and unreasonable wastes never will be prevented under the competitive system ; indeed, they are compelled under that system. Regulation of the kind proposed is likely to be of little avail if enforced only by the courts. But, if any case of unnecessary waste of a natural resource by any corporation can be brought to the knowledge of a commission by an individual, and the commission is thereby compelled to investigate the same and give appropriate, reasonable orders, we may expect that progress will be made in the protection of our natural resources.

Unnecessary wastes prevented.

Preventing unnecessary waste of a natural resource may somewhat raise the price of certain articles because of the increased cost of so conducting the business as to give this result. Indeed, it is certain in coal mining and in various other industries, that if as large economies as practicable be secured, there will be slight increases in prices. In such cases, if it be necessary for the future welfare of the race,

¹ Ch. 143, Laws of 1911.

this generation should be willing to bear the small additional expense.

(4) *Good Social Conditions Securable.* — The rule of law may be laid down that corporations which exist in restraint of trade shall conduct their business in accordance with good social conditions. Under this rule the administrative commissions would have power to formulate reasonable regulations in these respects and to enforce them. From the point of view of many, the possibility of introducing reasonable social conditions for the labor force of great corporations will be one of the greatest arguments in favor of commission supervision. To others this will seem to be going very far; but it is certain under the competitive system that the social conditions for labor are very unsatisfactory. The mining industry is extremely hazardous. Many of the great manufacturers press their labor to the limit, and this under dangerous conditions.¹ To introduce safe and sanitary conditions will involve greater expense in production. Under commission regulations the necessary additional expense may be compelled, and the additional price warranted may be allowed by the commissions. Like other regulations which have been suggested, that regarding social conditions stands upon its own merits; is not a necessary part of the plan to remedy the most pressing evils of the competitive and court system of control of industry.

(5) *Fair Wages Realizable.* — If desirable, the rule of law may be laid down that corporations doing business in restraint of trade shall pay fair wages. If this rule be adopted, again it would rest upon the commissions in cases of complaint to determine what are fair wages under the conditions which exist in a given instance. Like other suggestions under consideration, this is not an essential part of the plan of control, but it is believed to be one of the advantages which may in the future accrue from it.

When the author wrote the preceding it seemed somewhat radical even to him; but since that time in England,

¹ Hearings, Senate Interstate Commerce Committee, Part XXVI, p. 2322; Investigation U. S. Steel Corporation, pp. 2835-3152; 3255-3454.

a country commonly spoken of in America as conservative, has enacted a law establishing the principle of a minimum wage for coal miners, under which local boards each fix such wages for its district. This is a definite recognition by statute that wages must be paid which are adequate to furnish at least a livelihood, even if upon a somewhat low scale. Probably there will be a wide difference between the minimum wage of England and a fair wage in this country, but the principle involved in each is the same.

(6) *Control of Capitalization.* — If advisable, the law may lay down rules controlling the issue of stocks and bonds in order to prevent overcapitalization and stock manipulation. This subject, however, is one of such complexity that the author does not venture to formulate a rule of law to cover it. An appreciation of the difficulty of so doing may be gained by referring to the report of the Railroad Securities Commission upon stocks and bonds of railroads.¹ The same principles which apply to the railroads apply to a large extent, if not altogether, to the great industrial corporations.

(7) *Delimitation of Powers of State and Nation.* — A clear rule of law should be formulated regarding the limits of interstate commerce. The early decisions under the Sherman act inclined toward narrowly construing the power of Congress. The later decisions of the court have gone much farther, and it now looks as if the United States Supreme Court would sustain the position that Congress has the right to control all businesses in which any part is interstate in character. This seems the only logical place at which to stop. If this position be accepted, the necessary federal commissions would have under their regulation corporations having any interstate business. The state commissions would have the authority to deal with those businesses which are strictly within the states. This would include a vast field, for instance, practically all of the retail business of the country; not only so, but the vast numbers of small manufactories in various lines, and in

¹ Report Railroad Securities Commission, Washington, D.C., 1911.

many cases the coöperation of laborers and professional men.¹

General Statements. — We have now covered the specifications given on pp. 225–231 relating to what is desirable to accomplish by amending the antitrust legislation. A bill must first be passed covering the essential points mentioned, (1) to (4), pp. 249–252. If this can be accomplished, the existing futile and exasperating situation will cease to exist. Justice will be equally obtainable by all. The frightful wastes of the competitive system will, in a measure at least, cease. The business men may coöperate, and thus be able to carry on their business without becoming criminals under the law. Monopoly will not be permitted. Competition will remain open.

With these essentials accomplished the advantages of the additional proposed rules of law, (1) to (6), pp. 255–265, may be introduced as fast as practicable. Regarding some of them, possibly a consensus of opinion of the lawmakers may soon be reached; but if this does not prove to be true, they may be added from time to time, as justified by experience and demanded by public opinion.

SECTION 7

OTHER PLANS FOR AMENDMENT TO SHERMAN ANTI-TRUST LAW

The plan above proposed for handling the existing situation in this country concerning concentration of industry is not necessarily contradictory to, but may be regarded as supplementary of, a number of other plans which have been proposed.

Federal registration or license, federal incorporation, and federal tax have all been suggested. Senator Newlands² would permit all corporations that comply with definite regulations, including publicity, engaged in interstate commerce,

¹ See Senator Newlands, Hearings, Senate Interstate Commerce Committee, Part XIX, p. 1598.

² Hearings, Senate Interstate Commerce Committee, Part I, pp. 1–4.

doing a gross business of more than \$1,000,000 per annum, to have federal registration, which registration would grant certain privileges. Low¹ would require a federal license for all corporations having \$2,000,000 of assets or paid up capital. Mr. Elbert H. Gary and Mr. George W. Perkins² also favor a license system for corporations doing an interstate or international business. Untermeyer³ would require every corporation engaged in interstate commerce, having gross assets of \$1,000,000 or more, to secure federal incorporation. Low⁴ and Wickersham⁵ would permit, but would not require, federal incorporation.

The industrial commission proposed a franchise tax upon corporations in proportion to the actual value of stocks and bonded debts less the local assessment on the real estate, and in addition a graded tax upon the incomes of the corporations.⁶ An allied proposal is that of an increasing tax upon the capital of corporations. Thus W. S. Dwinell,⁷ of Minneapolis, suggests "a graded annual tax upon the capital of every corporation engaged in interstate commerce, whose capital exceeds a certain amount." Senator Newlands makes a similar suggestion.⁸

Another class of proposals is in the direction of limitation of corporate powers. Some men would altogether prohibit holding corporations from engaging in interstate commerce. Among these is Mr. Seth Low.⁹ He thinks the evils of holding companies are such that this class of corporation should no longer exist. According to his idea, each company should be independent. This would require the disintegration of a great many companies or their complete merger. Others have argued that one corporation should not hold any stock in any other corporation in any way whatsoever. A number of men have taken this position before the Interstate Commerce Committee. Some men would not go

¹ Hearings, Senate Interstate Commerce Committee, Part XVI, p. 520.

² *Ibid.*, XXVI, pp. 2407-2412; XV, p. 1091.

³ *Ibid.*, Part XVI, pp. 487, 488.

⁴ *Ibid.*, Part V, p. 19.

⁵ *The Century Magazine*, Vol. LXXXIII, pp. 619-620.

⁶ U. S. Industrial Commission, Vol. XIX, pp. 1067-1068.

⁷ Hearings, Senate Interstate Commerce Committee, Part III, p. 90.

⁸ *Ibid.*, Part VIII, p. 482.

⁹ *Ibid.*, Part IX, p. 488.

so far as to prohibit holding companies, but would require that the voting power of stocks owned by holding companies should be eliminated. Here is included Mr. Frederick W. Kelsey.¹ Still others would place a limitation upon community of directors so as to make sure that companies, apparently independent, are really so. Among these are Mr. Louis Brandeis.²

None of these proposals will be argued. Each must stand upon its own merits and justify itself if it is to be adopted by Congress and the state legislatures. None of these proposals interfere with the plan which has been suggested. If it seems advisable to do any of these things either by independent act or as additional amendments to the antitrust laws, this may be done without interfering in any way with any of the proposals made by the author on previous pages.

However, it is notable, that a number of those who have suggested the above measures desire to place their execution as well as the execution of the Sherman antitrust act with an administrative commission. Among these are Newlands,³ Untermeyer,⁴ Low,⁵ and Perkins.⁶ Further, in some cases the proposals have gone so far as to include the regulation of prices; for instance, Untermeyer would lay down the rule that the maximum price which may be chargeable "does not allow an undue profit."

SECTION 8

PATENT MONOPOLY ⁷

There is another important problem in connection with combinations in restraint of trade which has not been considered. This is patent monopoly. Many of the businesses in restraint of trade are so in large measure because they

¹ Hearings, Senate Interstate Commerce Committee, Part XVII, p. 1364.

² *Ibid.*, Part XVI, p. 1179.

³ *Ibid.*, Part I, pp. 1, 2.]

⁴ *Ibid.*, Part IX, pp. 487, 488.

⁵ *Ibid.*, Part IX, p. 520.

⁶ *Ibid.*, Part XV, p. 1102.

⁷ For full information regarding the patent situation, see Hearings before the Committee on Judiciary, House of Representatives, 1912, Patent Legislation, Series No. 1.

own patents. The very idea of a patent is monopoly. Under the new conditions of consolidation the patent monopoly has taken an entirely new aspect. The great manufacturing corporations, such as the General Electric Company, the United States Shoe Machinery Company, and the National Cash Register Company, have acquired a large part of the patents which affect their businesses. Some of these they have used; others they have simply acquired to prevent use by others. A combination of patents under one ownership, as compared with a single patent, has produced a situation regarding patents somewhat analogous to that which arose when partnerships of corporations were formed from corporations, by means of the device of trusts. The vast importance of this question of patent monopoly has become even more clear through a recent decision of the Supreme Court of the United States.¹ Previous decisions have made it clear that the patentee may restrict the time, place, or manner in which a patented machine may be used. The recent decision of the court, however, goes farther than this in that it is held that restrictions may be made regarding other things necessary for the use of the patented article, even if such things are not patented. Chief Justice White and Justices Hughes and Lamar strongly dissent from this opinion. They hold this principle to be dangerous and give as illustrations of these dangers the following. The quotations are from the Chief Justice:—

The danger
of combin-
ing patents.

“Take a patentee selling a patented engine. We will now have the right by contract to bring under the patent laws all contracts for coal or electrical energy used to afford power to work the machine or even the lubricants employed in its operation. Take a patented carpenter’s plane. The power now exists in the patentee by contract to validly confine a carpenter purchasing one of the planes to the use of lumber sawed from trees grown on the land of a particular person or sawed by a particular mill. Take a patented cooking utensil. The power is now recognized in the patentee to bind by con-

¹ Henry et al. v. A. B. Dick Company, U. S. Supreme Court, 20, October Term, 1911.

tract one who buys the utensil to use in connection with it no other food supply but that sold or made by the patentee. Take the invention of a patented window frame. It is now the law that the seller of a frame may stipulate that no other material shall be used in a house in which the window frames are placed except such as may be bought from the patentee and seller of the frame. Take an illustration which goes home to every one — a patented sewing-machine. It is now established that by putting on the machine, in addition to the notice of patent required by law, a notice called a license restriction, the right is acquired, as against the whole world, to control the purchase by users of the machine of thread, needles, and oil lubricants or other materials convenient or necessary for operation of the machine.

“My mind cannot shake off the dread of the vast extension of such practices which must come from the decision of the court now rendered. Who, I submit, can put a limit upon the extent of monopoly and wrongful restriction which will arise, especially if by such a power a contract which otherwise would be void as against public policy may be successfully maintained?”

It is clear that the situation is such that the patent laws under the new conditions will require amendments to protect the public. However, this matter lies outside of the scope of this book. It is mentioned because so closely related to that under consideration; indeed, for many concentrations of industry, patents have been the basis upon which monopoly has been secured.

SECTION 9

POSSIBLE OBJECTIONS TO PLAN OF REGULATION PROPOSED

In order that the remedial plan proposed may be fairly before the readers of this book, the writer will now consider some objections which may possibly be raised regarding it.

(1) It may be said that the commission form of regulation is new and untried; that the great corporations desirous

of controlling the commissions will be too powerful for them; and that the public will not be protected. In the minds of many, this will be a serious objection to the proposals made; and the danger is one which must be especially guarded against. One of these guards should be that all of the business of a commission should be open. The complaint made, the conduct of a case, the facts brought out, the reasoning relating to the facts, and the conclusion reached should all be made public. In short, in order that the people shall be protected, there should be the same publicity in the actions of a commission as is now demanded regarding the actions of a corporation. In time, methods of public bookkeeping will be developed and rules formulated to guide the commissions in their work and thus enable them to perform their duties, notwithstanding the great pressure which may be brought to bear upon them.

Public must hold commission accountable.

If it be desirable, a further precaution may be inserted similar to that which exists concerning commissions in Europe. Upon the request of a certain number of senators or representatives of Congress or of state legislators a commission may be summoned before the creating legislative body and be required to give answers to written interrogatories and be interrogated regarding any matter which is before the commission. Further, if the above are not sufficient to guard the public interest, provision may be made that any member of a commission may be removed for cause by the President or governor, or by Congress or legislature upon the passage of a joint resolution. By these various methods the public may be amply protected against any failure of a commission to perform its duty.

While there is the possible danger on one side that the powerful interests will control, on the other side there will be the fear by the corporations that the commissions will go too far and raid property. But on this side there is adequate protection under the Constitution, since from the commission there is appeal to the courts; and the courts under the 14th amendment are obliged to prevent the confiscation of property. If on both sides there be fear of the power of

trade commissions, it may be regarded as probable that a judicial balance will be maintained.

While the early experience in this country with commissions for control of railroads was not especially encouraging, the experience we have had with the railroad commissions later appointed, especially illustrated by that of Wisconsin, and by the Interstate Commerce Commission, since it has been given adequate authority, is very hopeful.

Doubtless difficulties will appear in connection with the administrative work of the commissions; but these do not seem likely to be nearly so serious as those which confront us if the Sherman act is invoked to destroy great concentrations in industry to the extent that will be necessary in order to return to adequate control of prices through competition.

(2) It may be said that the greater corporations will destroy the smaller corporations in the same business. The experience of other countries where coöperation is permitted gives no just ground for this conclusion. We have seen in this country under the competitive system and under severe laws against combination, that many small corporations have been destroyed. Upon the other hand, in England and in Germany, where the various corporations have been allowed to coöperate, while there has also been a strong tendency to consolidation, the concentration has not gone nearly so far as in America. Also the smaller competitors in most cases have been made a useful part of the coöperative or consolidated system rather than destroyed.

(3) If the amendments include the regulation of prices, it may be said that it will be especially difficult to control prices in those industries where the corporations do not manage the business from the source to the final product. As we have seen, the United States Steel Corporation handles its materials from the ore, limestone, and coal to the finished product. In such a case the problem of controlling prices is easier than the control of the prices of freight. But in cases illustrated by tobacco, beef, sugar, and oil, the combination is a buyer as well as a seller. In such an instance if

the corporation too greatly depresses the price of its supply, the product will not be furnished. In the long run, if the farmers do not get a fair price, they will not produce beef cattle nor tobacco; they will raise something else.

Cannot unduly depress prices.

This is illustrated by the beet sugar industry. For any district the purchase of beets by the sugar factory corporation is a practical monopoly, because transportation is so expensive for the heavy product, beets, that they cannot go to distant factories. This being the situation, the farmer will not plant beets unless he knows in advance the price he will receive. The sugar corporations are obliged to offer a price for beets which will induce the farmers to raise a sufficient supply for the adjacent factory. If the price offered is not sufficient, the factory will lack material for its run.

As we have seen, pp. 148-149, there is little complaint that the American Sugar Refining Company has unduly depressed the price of raw sugar. It has been charged that the packers at different times have unduly depressed the price of beef cattle; but if this practice existed, it has largely ceased, for it is now realized by the combination that it must maintain a reasonable price for beef, cattle, hogs, sheep, etc., in order to secure a sufficient amount of raw material through the years. The farmers will only permanently raise material for this industry when it is not as profitable to them as other products.

Precisely the same principle applies to tobacco. While undoubtedly there have been causes for complaint against the American Tobacco Company, if this organization had been allowed to continue permanently, it is certain that it would have been obliged to be fair and reasonable in prices paid for the raw material; otherwise, the combination would not be able to secure a sufficient amount to meet the demands.

For many years the great monopolistic company, Standard Oil, bought by far the larger portion of the crude oil for its refineries from hundred of sellers. In the early days of Standard Oil there was complaint regarding depression of prices; but for many years the prices paid by the Standard have been sufficient to induce drillers to search for and obtain

sufficient oil to supply the market. Indeed, there has been upon the whole an oversupply, which, from the point of view of conservation, is a detriment to the nation. So long as the prices paid for a natural resource produced from the interior of the earth are sufficient to supply the market not only in this country, but for a large part of the world, this is evidence that the price of the raw material has not been unduly depressed.

The principle which applies to the above commodities applies to all commodities in which the corporations are buyers as well as sellers. While there may have been occasion for complaint from time to time, probably the producers of raw products for the great corporations have had as equitable prices as are ordinarily secured for those commodities concerning which unrestrained competition completely controls.

In further answer to the statement that there will be cause for complaint regarding prices paid for materials by the great corporations, it may be said that if prices at which the products of the combinations are sold, are subject to control of commissions and profits cannot be excessive, there will be no strong motive to depress unduly the purchase prices of the materials which must be bought. Indeed, it is a probable advantage of the plan proposed that fair and reasonably uniform prices will be secured for the products needed by the combinations.

(4) It may be said under the plan in which prices are held at a reasonable level that the income on the bonds and stocks of a corporation, so far as they are substance, not water, will be guaranteed; and, therefore, an organization will rest on its laurels, and progress will be stayed. The answer to this objection is that the proposal made eliminates only competition in prices; it does not interfere with competition in service (see p. 75). If a ton of freight be shipped from New York to Chicago, it makes no difference what road is used; the rate is the same. But has competition ceased between the railways running between New York and Chicago? On the contrary, it is of the keenest. The agents of these roads are everywhere soliciting business, explaining advan-

tages, promising to put through freight promptly. Similarly, for passenger service; the speeds have been increased; new steel cars have been introduced; more trains are run. In many ways the service is becoming safer, more reliable, convenient, and satisfactory. Why is this true when prices are the same? Because the road which makes most progress and is most efficient will do more business, and be able to pay a larger profit than its competitors. Those who know the facts appreciate how keen is the competition between the New York Central and Pennsylvania systems; each has done its best to increase and extend its facilities in order to get the largest possible proportion of business.

At this point we see a fatal defect of another proposal which has been made regarding combinations, viz., that prices be controlled through limiting profits or dividends.¹ This proposal would stifle competition in business, and hence progress; because, if an organization be sufficiently efficient so that it gives just the returns allowed, five or six per cent on its bonds, and seven per cent on the stock, why do anything more? Hence the proposal to control the trusts by limiting incomes and dividends is economically fallacious. The corporation which is efficiently managed should pay a higher dividend than the poorly managed concern. Indeed, in Boston the gas company is allowed to pay higher dividends in proportion as it lowers the price of gas. The commissions may find it advantageous to use this principle and thus give strong inducements for high efficiency.

Controlling profits or dividends unsound economically.

Therefore, it is insisted that the plan advocated does not do away with competition in service. It does not interfere with technical improvements, as held by Clark;² it does not interfere with the installation of cost accounting, nor any of the advantages of the competitive system, except competition in prices; and, as already seen, competition in prices is far from an unqualified gain.

(5) It may be objected to the proposal to allow concentra-

¹ Professor J. Laurence Laughlin, Hearings, United States Senate Interstate Commerce Committee, Part XIV, p. 1000.

² *Ibid.*, Part XIV, p. 972.

tion and industrial coöperation that this will result in putting the major portion of the money for the great lines of business in a few centers ; in short that it will promote the so-called money trust. Indeed, this objection has been made regarding large concentrations of industry by Mr. Brandeis.¹

Banking
reform.

The reform of our banking system is a question to be handled by separate legislation. We already have a report by the Aldrich Monetary Commission upon improvements of the banking system of this country, which admittedly is far behind that of other great industrial nations. Many other plans have been proposed. Our banking system is now being investigated by Congress and is the subject of special study by the National Citizens' League for the Promotion of a Sound Banking System. As to what should be done to improve the situation in banking, the author will venture no opinion ; but he insists that this problem is one which of necessity must be solved by special laws and independently of the general plans for conducting industry.

Numerous
commissions
may be
necessary.

(6) It may be said that the plan for regulating all concentrations and coöperations in industry which go to the point of controlling the market will create a great series of commissions, national and state. This is undoubtedly the fact. It may well be in the future that in addition to an interstate trade commission, which has the position in industry of a supreme commission, there may be subordinate to it another class of commissions to which must first go certain questions exactly as law cases commonly first go to district and circuit courts. In the states, it is probable that a single commission with its scientific staff of experts will be sufficient to handle the business that will come before it ; but if necessary, there may be created in the states two classes of commissions precisely as there is more than one class of courts. Certainly whatever cost is necessary in order to relieve the present chaotic condition of affairs and to secure justice and development, that cost is justified.

(7) It may be said that the plan proposed provides no method of punishment for those who have violated the

¹ Hearings, Senate Interstate Commerce Committee, Part XVI, p. 1189.

national and state laws against restraint of trade. The answer is that there is nothing in the proposals made which relieves any individual or corporation from the sins of the past. Some men believe that those who have violated the trust laws, and especially those who have engaged in the grosser unfair practices, should not escape punishment. Upon this point the author has merely to say that he is far more interested in the future than in the past. The proposals which have been made are for the future. They leave the question of punishment of individuals for violation of existing laws to be settled by the good sense of the community. It may be that there will be advantage in punishing some of those who have indulged in the more outrageous forms of unfair practices. When in the future we have rational laws with administrative commissions to enforce them, we shall have a situation for industrial corporations like that we now have for the railroads. There will be comparatively few who will violate the laws, and it will be possible to punish those who do violate them.

Shall the
guilty
escape?

SECTION 10

CONCLUSION

In conclusion there is presented as the solution of the difficulties of the present industrial situation, concentration, coöperation, and control. Through concentration we may have the economic advantages coming from magnitude of operations. Through coöperation we may limit the wastes of the competitive system. Through control by commission we may secure freedom for fair competition, elimination of unfair practices, conservation of our natural resources, fair wages, good social conditions, and reasonable prices.

Concentration and coöperation in industry in order to secure efficiency are a world-wide movement. The United States cannot resist it. If we isolate ourselves and insist upon the subdivision of industry below the highest economic efficiency and do not allow coöperation, we shall be defeated in the world's markets. We cannot adopt an economic system less efficient than our great competitors, Germany, Eng-

land, France, and Austria. Either we must modify our present obsolete laws regarding concentration and coöperation so as to conform with the world movement, or else fall behind in the race for the world's markets. Concentration and coöperation are conditions imperatively essential for industrial advance; but if we allow concentration and coöperation, there must be control in order to protect the people, and adequate control is only possible through the administrative commission. Hence, concentration, coöperation, and control are the key words for a scientific solution of the mighty industrial problem which now confronts this nation.

APPENDIX

THE SHERMAN ANTITRUST LAW

[Act of July 2, 1890 (26 Stat., 209)]

AN ACT to protect trade and commerce against unlawful restraints and monopolies.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SEC. 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal. Every person who shall make any such contract or engage in any such combination or conspiracy, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

SEC. 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

SEC. 3. Every contract, combination in form of trust or otherwise, or conspiracy, in restraint of trade or commerce in any Territory of the United States or of the District of Columbia, or in restraint of trade or commerce between any such Territory and another, or between any such Territory or

Territories and any State or States or the District of Columbia, or with foreign nations, or between the District of Columbia and any State or States or foreign nations, is hereby declared illegal. Every person who shall make any such contract or engage in any such combination or conspiracy, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

SEC. 4. The several circuit courts of the United States are hereby invested with jurisdiction to prevent and restrain violations of this act; and it shall be the duty of the several district attorneys of the United States, in their respective districts, under the direction of the Attorney-General, to institute proceedings in equity to prevent and restrain such violations. Such proceedings may be by way of petition setting forth the case and praying that such violation shall be enjoined or otherwise prohibited. When the parties complained of shall have been duly notified of such petition the court shall proceed, as soon as may be, to the hearing and determination of the case; and pending such petition and before final decree, the court may at any time make such temporary restraining order or prohibition as shall be deemed just in the premises.

SEC. 5. Whenever it shall appear to the court before which any proceeding under section four of this act may be pending, that the ends of justice require that other parties should be brought before the court, the court may cause them to be summoned, whether they reside in the district in which the court is held or not; and subpoenas to that end may be served in any district by the marshal thereof.

SEC. 6. Any property owned under any contract or by any combination, or pursuant to any conspiracy (and being the subject thereof) mentioned in section one of this act, and being in the course of transportation from one State to another, or to a foreign country, shall be forfeited to the United States, and may be seized and condemned by like proceedings as those provided by law for the forfeiture,

seizure, and condemnation of property imported into the United States contrary to law.

SEC. 7. Any person who shall be injured in his business or property by any other person or corporation by reason of anything forbidden or declared to be unlawful by this act, may sue therefor in any circuit court of the United States in the district in which the defendant resides or is found, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the costs of suit, including a reasonable attorney's fee.

SEC. 8. That the word "person," or "persons," wherever used in this act shall be deemed to include corporations and associations existing under or authorized by the laws of either the United States, or the laws of any of the Territories, the laws of any State, or the laws of any foreign country.

INDEX

- Administrative commissions, 249, 268.
- Advertising, expense, 89; saved in large scale production, 14.
- Agreements, 64, 81, 83, 133, 201.
- Agricultural implements, statistics, 46, 47.
- Alabama, laws against combination, 192, 193.
- Aldrich Monetary Commission, 275.
- American Cigar Company, 184.
- American Mining Congress, 92.
- American Snuff Company, 184.
- American Steel Hoop and Wire Company, 14, 15.
- American Stogie Company, 184.
- American Sugar Refining Company, 13; attacked under Sherman law, 191; decisions under Sherman law, 177; excessive profits, 149; organization, 147.
- American Tobacco Company, 140-147; amount of business controlled by, 49; dissolution, 70; excessive profits, 145; organization, 140; overcapitalization, 28, 29, 142; unfair practices, 24.
- Amsterdam Supply Company, 184.
- Anthracite coal, 33; output and price fixed, 63; price, 62; waste, 90; *see* Coal.
- Antitrust laws, necessary amendments, 249, 251.
- Arbuckle Brothers Company, 148.
- Arkansas, laws against combination, 192, 193.
- Armour Company, 152.
- Associations, informal and formal, 60; regulations, 63.
- Austria, concentration in, 219.
- Banking reform, 275.
- Beet sugar, statistics, 48.
- Belgium, cartels, 221.
- "Big Six," 150-154; indictment against, 154.
- Bogle, Walter S., referred to, 91.
- Boots and shoes, statistics, 52.
- Boycotts, illegal under Sherman Law, 179.
- Brandeis, Louis D., referred to, 11, 13, 19, 98, 185, 232, 267, 275.
- Brooks, T. J., referred to, 67.
- Bryan, W. J., referred to, 230, 251.
- Butter, cheese, and condensed milk, statistics, 47, 48.
- By-products, saving of, 11.
- California, laws against combination, 193; railroad commission, 234; water powers, 162, 165.
- Callbreath, J., referred to, 92.
- Cambria Steel Company, 126.
- Capital and product, ratio between, 59.
- Capitalization, control of, 265.
- Carnegie Company, 18.
- Cartels, 207, 212, 220, 221, 223.
- Cities, growth due to concentration, 19.
- Civil War, effect on industrial development, 1; concentration, 4.
- Clay products, statistics, 41.
- Coal, saving by use of water power, 164; *see* Anthracite coal.
- Coats, J. & P., Thread Company, 204, 205.
- Coke, statistics, 38; waste in making, 94.
- Coller, E. H., referred to, 67.
- Colorado, water powers, 162, 165.
- Combined textiles, statistics, 56, 57.
- Commerce court, 240.
- Commercial travelers, number reduced by large scale production, 14.
- Commission administration, pure food laws, 245.
- Commission control, California, 234; Iowa, 235; Massachusetts, 234; New York, 235; Wisconsin, 236; United States, 238; industrial corporations, 248, 252; prices, 261; public utilities, 233.
- Commonwealth Power, Railway, and Light Company, 163.
- Communication, development, 4; effect on freight, 6.

- Competition, among steel companies, 139; between different classes of dealers, 82; breakdown, 76; decline in retail trade, 83; effect on combination, 99; effect on conservation, 89; effect on public utilities, 32; effect of railway development, 65; elimination, a cause of concentration, 26; entrance of outside, 86; failure to regulate price, 78; failure to regulate quality, 76, 245; faith in, 74, 76, 87; freedom in, 172; illegitimate, 143; in England, 169; in price, 73; in quality, 72; in service, 75; kinds, 72; necessary to retain, 225, 252; of United States in world's markets, 224; personal element in, 75; position of Germany and Great Britain, 221; potential, 84; unfair, German laws, 219; unrestrained, 98; usefulness, 87; wastes, 88, 97.
- Conley Foil Company, 184.
- Conservation, effect of competition on, 89, on prices, 263; enforcement of laws, 263; Wisconsin law, 263.
- Copper, waste, 95.
- Corporation laws of New Jersey, 70.
- Cost of production, 20.
- Cotton and wool manufactories, statistics, 54, 55.
- Cotton Oil Company, 13.
- Dairy products, prices fixed, 64.
- Danbury hatters, 180.
- Diamond Match Company, 33, 71.
- Division of business and territory, a cause of concentration, 26.
- Drawbacks, 22, 24.
- Du Pont Powder Company, 187.
- Dwinell, W. S., referred to, 267.
- Electrical machinery, statistics, 39.
- Ely, R. T., referred to, 85, 233.
- England, concentration, 203; iron and steel, 204; laws regarding coöperation, 167.
- Engrossing, 167.
- Enhancing, 167.
- Farmers' Educational Coöperation Union, 67.
- Farmers' selling agencies, 80.
- Florida, laws against combination, 192.
- Foreign trade, advantage of concentration in, 15; effect of organization of U. S. Steel Corporation on, 19.
- Forestalling, 167.
- France, concentration in, 220.
- Freights, coöperation in reference to rates, 78; cross, 11; effect of telegraph and telephone upon, 6.
- Fruit Growers' Association of California, 67.
- Fruit growers' exchanges, 66.
- Gary, E. H., referred to, 63, 139, 266.
- General corporation act of New York, 21.
- General Electric Company, control of patents, 24; dissolution by mutual agreement, 187; production, 39; water power controlled by, 163.
- Georgia, laws against combination, 193; water powers, 163.
- German Steel Combine, 207.
- Germany, concentration in, 206; iron and steel in, 207.
- Gilmore, E. A., referred to, 257.
- Glass, statistics, 41, 42.
- Good will, capitalization of, 28.
- Gould interests, water power controlled by, 163.
- Hatton, W. H., referred to, 236.
- Holding corporations, 69.
- Holmes, J. A., referred to, 90, 91, 94.
- Hornblower, W. B., referred to, 261.
- Hosiery and knit goods, statistics, 55.
- Huston, A. F., referred to, 62.
- Ice, manufactured, statistics, 42, 44; situation at Madison, 86.
- Idaho, laws against combination, 192; water powers, 165.
- Illinois, laws against combination, 193; water powers, 165.
- Imperial Tobacco Company, capitalization, 205; formation, 143; position in Great Britain, 204.
- Indiana, laws against combination, 193.
- International Combinations, 143, 222-224.
- International Harvester Company, 14.
- International Mercantile Marine Company, 223.

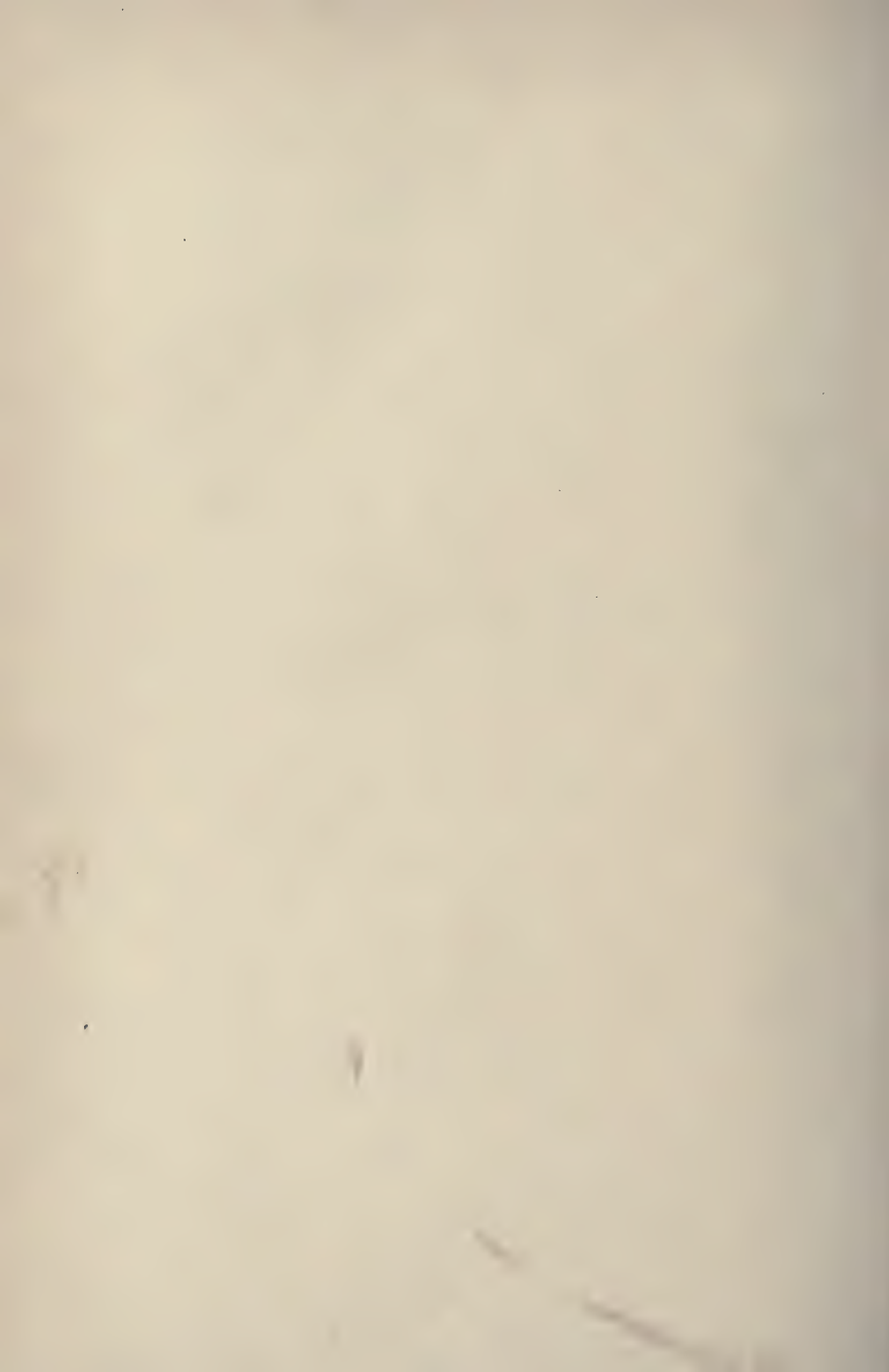
- International Rail Syndicate, 222.
 Interstate commerce, limits of, 265.
 Interstate Commerce Commission, 238.
 Investigating departments, 13, 135.
 Iowa, commission control, 235; laws against concentration, 193.
 Iron and steel, international combinations, 223; situation in England, 204; situation in Germany, 107; statistics, 37.
 Iron ore, holdings of United States Steel Corporation, 129; value, 129.
 Joint Traffic case, 178.
 Jones and Laughlin Steel Company, 124.
 Kansas City Live Stock Exchange, 177.
 Kansas, laws against combination, 193.
 Kelsey, F. W., referred to, 70, 267.
 Kentucky, laws against combination, 192, 193.
 Keystone Watch Case Company, 189.
 Knickerbocker Ice Company, 86.
 Labor, combinations, illegal under Sherman act, 179; conditions, effect of concentration upon, 17; subdivision, 9.
 Lackawanna Steel Company, 124.
 Large and small steel companies, comparison of, 136, 139.
 La Follette, R. M., referred to, 236.
 Laughlin, J. L., referred to, 82, 98.
 Laws, concentration accelerated by, 71; effect of, on combination, 191; of states, against combination, 192, 193; effect of, on forms of organization, 60.
 Lead and zinc, waste in, 95.
 Leather, statistics, 51, 52, 53.
 Levy, Felix H., referred to, 11, 185.
 Limited liability corporation, 21.
 Low, Seth, referred to, 266, 267, 268.
 Lumber and timber, statistics, 43, 44; industry, 154-160.
 MacAndrews and Forbes Company, 184.
 MacRae, F. J., referred to, 119, 139.
 Madison, situation in reference to ice, 86.
 Maine, laws against combination, 193.
 Manufactured ice, statistics, 42, 44.
 Marine combinations, 223.
 Maryland, laws against combination, 192.
 Massachusetts, fixing of prices, 256; laws against combination, 193; railroad commission, 234.
 Meat, output and price fixed, 63; packing industry, 150-154; capitalization, 152; profits, 152; statistics, 50, 51.
 Merger, 71.
 Michigan, laws against combination, 193; water powers, 163.
 Michigan Salt Association, 65, 101-103.
 Minnesota, laws against combination, 193;
 Mississippi, laws against combination, 192, 193.
 Missouri, laws against combination, 193.
 Montana, laws against combination, 192; water powers, 162.
 National Cash Register Company, 189.
 National Citizens' League for the Promotion of a Sound Banking System, 276.
 National Packing Company, 151.
 Natural gas, waste of, 94.
 Natural resources, conservation of, 262; wastes of through competition, 90.
 Nebraska, laws against combination, 193.
 Needles, pins, hooks, and eyes, statistics, 56, 57.
 Nettleton, A. B., referred to, 97.
 New Jersey, corporation laws, 70.
 Newlands, F. G., referred to, 266, 267, 268.
 New Mexico, laws against combination, 193.
 New York, fixing of prices, 256; general corporation act, 21; laws against combination, 193.
 Niagara Falls, water power development, 163.
 Nobel Dynamite Trust Company, 205.
 North Carolina, laws against combination, 192, 193; water powers, 163.
 North Dakota, laws against combination, 192, 193; water powers, 165.

- Northern Pacific Railway Company, 157.
- Northern Securities Company, 180.
- Ohio, laws against combination, 193.
- Oil producers' association, 80.
- Oklahoma, laws against combination, 193.
- Oregon, water powers, 165.
- Organization, forms of, 60; influence of statute law upon, 60.
- Overbuilding, a result of competition, 17.
- Overcapitalization, 28; American Sugar Refining Company, 149; American Tobacco Company, 142; evils of, 30; United States Steel Corporation, 28, 29, 115; United States Shipbuilding Company, 29.
- Overproduction, a result of competition, 26.
- Pacific Gas and Electric Company, 163.
- Paper and wood pulp, statistics, 45.
- Patent control of, a factor favoring concentration, 24; monopoly, 268; protected products, 34.
- Pens and pencils, statistics, 58.
- Periodical Publishing Company, 191.
- Perkins, George W., referred to, 266, 268.
- Petroleum, statistics, 40.
- Pittsburg Coal Company, 93.
- Pools, 68, 103.
- Potash industry, in Germany, 218.
- Preferred industrials, statistics, 30.
- Prices, agreements, 81; iron and steel, 133; labor, 86; professional men, 86; commission control of, 78, 260, 261; discriminations, Standard Oil Company, 109; effect of conservation on, 263; effect of formation of United States Steel Corporation on, 134; effect of watered stock on, 30, 31; excessive, limit to, 84; failure of competition to regulate, 78; fall of, a result of competition, 26; fixed by corporations, 78; fixing of, in Massachusetts and New York, 256; maintenance of, 62; irregularity in, a result of competition, 27; monopoly, law of, 85; monopoly, Standard Oil Company, 107; public utilities do not compete in, 78; regulation of, 255; regulation of, in potash industry in Germany, 218; timber, 159; trusts do not compete in, 79; water powers, 164.
- Printing and publishing, statistics, 45, 46.
- Promoters, profits of, 27.
- Protective tariff, a cause of concentration, 21, 25.
- Pryor, Roger A., referred to, 74, 75.
- Public utilities, 32; and monopoly, 32; commission control, 233; controlled by water power interests, 164; do not compete in price, 78; effect of competition on, 32; great producing corporations declared to be, 249.
- Pure food laws, 77, 244; administered by commission, 245; effect of, on quality, 77.
- Pure Oil Company, 106.
- Quality, competition in, 72; effect of pure food laws on, 77; failure of competition to regulate, 76.
- Railroad Commission, 234, 235, 236.
- Railroad Securities Commission Report, 230, 265.
- Railways, beginning of, in United States, 5; discriminations, 106; effect of development upon competition, 65; extension of, 5; pools, 65; violation of laws, 98.
- Rebates, 22, 24; a cause of concentration, 24, 25; American Sugar Refining Company, 150; Standard Oil Company, 107.
- Regrating, 167.
- Regulation, and socialism, 242, 262; objections to, 270; of output, a cause of concentration, 26; of output in Germany, 218; of prices, 255; of prices in Germany, 218; of production, an advantage of concentration, 15; only protection for the public, 261; resistance to, 242.
- Republic Iron and Steel Company, 126.
- Retail trade, decline of competition in, 83; situation in England, 204.
- Salesmen, expense of, 88; number reduced by large scale production, 14.
- Salt, statistics, 41, 43.

- Selling agencies, 67, 79, 80, 91; illegal under Sherman Law, 179; in France, 221.
- Sherman antitrust law, 174-192; amendments, 266; exchange of information under ban, 61; fruit growers' associations in violation, 67; holding corporations now being attacked under, 70; prosecution of lumber associations under, 64; prosecution of produce exchanges under, 64; text, 279.
- Shipbuilding, statistics, 39.
- Silk manufacture, statistics, 56.
- Skinner, D. E., referred to, 95.
- Slaughter and meat packing, statistics, 50, 51; *see* Meat.
- Smith, S. Morgan, Company, 163.
- South Carolina, laws against combination, 192, 193; water powers, 163.
- South Dakota, laws against combination, 192, 193.
- Southern Pacific Company, 157.
- Southern Power Company, 163.
- Southern Wholesale Grocers' Association, 64, 188.
- Specialization, 10, 135.
- Spreckles Company, 148.
- Standardization of articles, 33, 74.
- Standard Oil Company, 104-110; capitalization, 105; common stock, 29; control of pipe lines, 106, 107; discriminations of railways in favor, 106; dissolution, 70, 182; evils, 110; example of holding corporation, 70; foreign trade, 15; investigating departments, 13; organization, 104; prices at home and abroad, 22; profits, 85, 109; scope of operations, 105; unfair practices, 23, 110.
- Standard Oil Trust of Ohio, 174.
- Starch, statistics, 48, 49.
- Steamship lines, agreements, 98; combinations, 223.
- Stock manipulation, 31; American Tobacco Company, 142; Standard Oil Company, 105; United States Steel Corporation, 117.
- Stone & Webster Company, 163.
- Sulphur, waste of, 95.
- Tariff, effect on combination in England, 205; in Germany, 217; in United States, 21.
- Telluride Power Company, 163.
- Tennessee, laws against combination, 192, 193.
- Texas, laws against combination, 192, 193.
- Timber, supply, 154; waste, 95; *see* Lumber.
- Tobacco, situation in England, 204; statistics, 49, 50.
- Trade commissions, 252.
- Traders' Live Stock Exchange, 177.
- Traer, G. W., referred to, 92.
- Trans-Atlantic steamship pool, 191.
- Trans-Missouri case, 178.
- Transportation, control by Standard Oil Company, 106, 107; control by United States Steel Corporation, 134; development, 4; effect on concentration, 7.
- Trusts, 68, 69; do not compete in price, 79; early group, 33; number, 35.
- Unfair practices, American Sugar Refining Company, 149; American Tobacco Company, 143-147; General Electric Company, 187; illegal under Sherman law, 179; National Cash Register Company, 190; prohibition of, 225, 252; Standard Oil Company, 110; United Shoe Machinery Company, 189.
- United Alkali Company, 205.
- United Metals Selling Company, 79.
- United Shoe Machinery Company, attacked under Sherman law, 189; control of patents by, 24; unfair practices of, 189.
- United States Shipbuilding Company, 29.
- United States Steel Corporation, 10, 12, 111-140; attacked under Sherman law, 189; capacity and resources, 115; companies consolidated to form, 114; control of establishments by, 35; earnings, 117; effect of on foreign trade, 19; efficiency of capital, 16; elimination of competition, 26; evils, 140; example of holding corporation, 70; foreign trade, 15; organization, 111; overcapitalization, 28, 29, 115; practices, 132; prices at home and abroad, 22; profits put back into business, 84; watering of stock, 117.

- United States Steel Export Company, 120.
- Untermeyer, Samuel, referred to, 83, 95, 98, 99, 185, 268.
- Urdahl, T. K., referred to, 207.
- Utah, laws against combination, 192, 193.
- Vinje, A. J., referred to, 250.
- Vinson, Taylor, referred to, 99.
- Von Halle, referred to, 18.
- Walker, A. F., referred to, 99, 100.
- Washington, laws against combination, 192; water powers, 162, 163.
- Water powers, 160-166, distribution and amount, 160; in United States, 164; public control of, 164; traffic, 6; elimination of, 241.
- Waters-Pierce Company, 183.
- Westinghouse Company, 24, 39.
- Weyerhaeuser Timber Company, 157.
- Wickersham, G. W., referred to, 248, 249, 261, 267.
- Whisky, combination, reduction of salesmen, 14; decisions under Sherman law, 176; overbuilding, 17, 27.
- Wisconsin, commission control in, 236; laws in reference to conservation, 263, laws in reference combination, 193; railroad commission, 236; water powers of, 165.
- Wyoming, laws against combination, 192; water powers, of, 165.

THE following pages contain advertisements of a few of the
Macmillan books by the same author, or on kindred subjects



By CHARLES RICHARD VAN HISE

President of the University of Wisconsin

The Conservation of the Natural Resources in the United States

Cloth *8vo* \$2.00 *net*

An extremely valuable summary of the whole subject of the natural resources of the United States. It covers the minerals, waters, forests, and soils; their relations to the needs of humanity and to law, existing or desirable. In brief, it contains the essential information which an intelligent citizen might desire for his better understanding of the increasingly important subject of conservation.

The Conservation of Natural Resources has created considerable discussion, particularly during the past few years, and a vast amount of material has been written concerning every phase of the subject. Until the appearance of this volume, however, it has been necessary to search through miscellaneous publications of the United States Government, magazine articles, reports of special commissions, and other sources not easily accessible, if one wanted to thoroughly cover the subject. No single volume has before attempted to deal with the conservation of minerals, waters, forests, soils; their relations to one another and to humanity as a whole as Dr. Van Hise has so adequately done.

To the specialists the résumé of investigations and experiments in their own special fields will prove of great use, while the many illustrations in this volume serve as concrete examples of what is being done and the results of the work.

Probably the most interesting chapter in the book to the general reader not especially interested in conservation will be the last one on "Conservation and Mankind," in which the author discusses the conservation of human life and happiness under such topics as Individualism, Women and Child Labor, "Joy to You," Conservation and Patriotism; The Godlike Destiny of Man, etc.

Professor Van Hise, President of the University of Wisconsin, was one of the delegates to the White House Conference and was a member of the National Conservation Commission appointed by President Roosevelt. He is now the chairman of the State Conservation Commission of Wisconsin and the member of the board of governors from Wisconsin of the National Conservation Association, and is a man well qualified to speak with authority on all topics bearing on the subject of conservation. For many years he has been prominent in geological work as head of a department of the United States Geological Survey and of the Wisconsin Geological and Natural History Survey, and has also published a number of books, the results of his own independent investigations in geology.

THE MACMILLAN COMPANY

Publishers

64-66 Fifth Avenue

New York

ONE OF THE EARLIEST AND MOST SUGGESTIVE EXPRESSIONS OF THE SPIRIT OF "NEW NATIONALISM"

Mr. HERBERT CROLY'S important work

The Promise of American Life

Cloth, 8vo, \$2.00 net; by mail, \$2.14

No worker on any period of United States political history should miss this disclosure of the bankruptcy of our political theorizing in the past, "conceived and executed with penetration and ability," according to the *New York Evening Post*, which opens a three-column review with the statement, "This is an eminently notable book."

Collier's Weekly classifies it as "dynamic in quality, a book in which a vital force resides which makes reading less a recreation or an ingestion of information than an impetus to one's own thought."

"In the long list of political books his stands out for breadth of vision, sanity of judgment and inspiration. . . . Few recent books have been so vital." — *Chicago Evening Post*.

"A contribution of marked value." — *World To-Day*.

Dr. HENRY VAN DYKE'S Sorbonne Lectures on

The Spirit of America

Cloth, \$1.50 net; by mail, \$1.61

"Perhaps there is no more curious fact in the history of nations than that France and America should have grown sufficiently apart to make the Hyde foundation necessary. . . . The task Dr. van Dyke sets himself is to expound 'the spirit of America,' its self-reliance, love of fair play, its unpruned enthusiasm for 'education,' its faults as well as its admirable points. Dr. van Dyke's volume deserves wide reading. One may wince a little, but 'even if the writer has a high ideal of what the American spirit really is, no American reader can fail to benefit by it.' A wholesome book, then, and as entertaining as it is wholesome." — *Chicago Inter-Ocean*.

"A tremendously stimulating book." — *Boston Transcript*.

"Entertaining as well as instructive." — *New York Sun*.

PUBLISHED BY

THE MACMILLAN COMPANY

64-66 Fifth Avenue, New York

Principles of Economics

By F. W. TAUSSIG, Henry Lee Professor of Economics in Harvard University.

2 vols. Cloth, 8vo, \$4.00 net

The book deals chiefly with the industrial conditions of modern countries, and most of all with those of the United States. Economic history and economic development are not considered in any set chapters, being touched only as they happen to illustrate one or another of the problems of contemporary society.

Among the important chapters are those on Wealth and Labor; The Division of Labor and the Development of Modern Industry; Quantity of Money and Prices; Differences of Wages; Wages and Value; General Wages; Trade-Unions and Labor Legislation.

Of these perhaps the most important is that dealing with General Wages. Here the fundamental questions as to general wages as raised by the case of hired laborers is discussed; also the notion that lavish expenditure creates demand for labor and makes wages high.

The author explains why hired laborers universally desire that employment should be created and dislike labor-saving appliances.

The author states the principles of economics in such form that they are comprehensible to an educated and intelligent person who has not before made any systematic study of the subject.

THE MACMILLAN COMPANY

Publishers

64-66 Fifth Avenue

New York

BOOKS ON AMERICAN INSTITUTIONS

A GREAT WORK INCREASED IN VALUE

The American Commonwealth

By JAMES BRYCE

New edition, thoroughly revised, with four new chapters; two 8vo volumes, \$4.00 net

"More emphatically than ever is it the most noteworthy treatise on our political and social system." — *The Dial*.

"The most sane and illuminating book that has been written on this country." — *Chicago Tribune*.

"What makes it extremely interesting is that it gives the matured views of Mr. Bryce after a closer study of American institutions for nearly the life of a generation." — *San Francisco Chronicle*.

Social Forces in American History

By A. M. SIMONS

Cloth, 12mo, \$1.50 net; by mail, \$1.62

There has long been a demand in this country for a treatment of our history from precisely the point of view adopted by the author of this volume, namely, the social-economic. Writers who in the past have tried to meet this demand have largely shot wild; few of them have been as well equipped for the work as Mr. Simons. He has written a book which will wake people up and attract wide attention. He does not delay over the events of political history, devoting his attention instead to their interpretation through the analysis of economic forces.

"The New Democracy"

By WALTER E. WEYL, PH.D.

Cloth, 12mo, \$2.00 net

We are entering on a period of our history more tensely interesting than any since that of 1860. Into the exciting situation many forces enter: — the presence of the "plutocracy" in politics, the growing solidarity of the labor vote, the woman suffrage movement, and a social consciousness waking and groping for "a new democracy." If you are interested at all in the political and social situation, you will find that this book clarifies much which is confusing, expresses your feeling, and outlines your programme of democracy — political, social, and industrial — more definitely and forcibly than you have ever seen it done in print before.

THE MACMILLAN COMPANY

Publishers

64-66 Fifth Avenue

New York

BY SCOTT NEARING, PH.D.
Of the Wharton School, University of Pennsylvania

Social Adjustment

Cloth, 377 pages, \$1.50 net

"It is a good book, and will help any one interested in the study of present social problems." — *Christian Standard*.

"A clear, sane gathering together of the sociological dicta of to-day. Its range is wide — education, wages, distribution and housing of population, conditions of women, home decadence, tenure of working life and causes of distress, child labor, unemployment, and remedial methods. A capital reading book for the million, a text-book for church and school, and a companion for the economist of the study desk." — *Book News Monthly*.

Wages in the United States

Cloth, 12mo, \$1.25 net; by mail, \$1.34

This work represents an examination of statistics offered by various states and industries in an effort to determine the average wage in the United States. As a scholarly and yet simple statement it is a valuable contribution to the study of one side of our social organization.

Economics

BY SCOTT NEARING AND FRANK D. WATSON

Both Instructors in Political Economy in the Wharton School
of Finance and Commerce, University of Pennsylvania

Cloth, 8vo, 493 pages, \$1.90 net

The book discusses the whole subject of prosperity of the factors which enter into the complex economic life of the nation. A young man who wishes to read even the daily paper with full intelligence would find time spent in reading this book well employed for the help which it would give him in understanding current discussions of such topics as the standard of living; the natural resources of the country and their conservation; the relations of labor and immigration; of the labor of women and children to industrial progress; of organization in business and its tendencies; of the growth and functions of large corporations; of public ownership; of the various experiments which have been tried at different times, or the programmes which social leaders are now proposing for the remedy or the prevention of economic injustice.

THE MACMILLAN COMPANY

Publishers

64-66 Fifth Avenue

New York

"IT IS NOT PROBABLE THAT WE SHALL SEE A MORE COMPLETE OR BETTER BALANCED HISTORY OF OUR GREAT CIVIL WAR." — *The Nation*.

History of the United States

From the Compromise of 1850 to the Final Restoration of Home Rule at the South in 1877.

By JAMES FORD RHODES, LL.D., Litt.D.

Complete in seven octavo volumes, attractively bound in dark blue cloth.

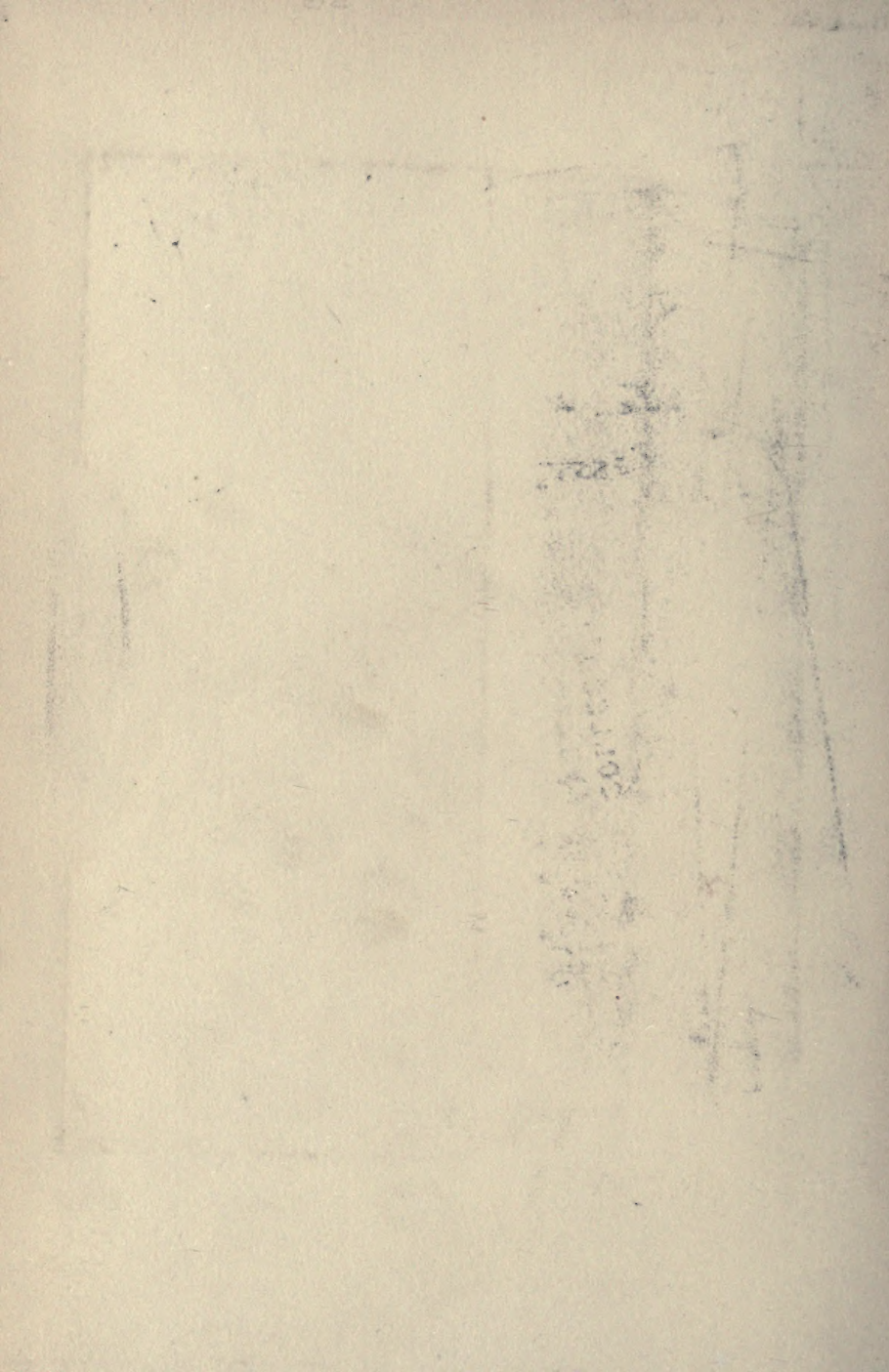
- I. The first volume tells the history of the country during the four years' futile attempt to avoid conflict by the Missouri Compromise, ending with its repeal in 1854.
1850-1854
- II. The second volume deals with the stirring events which followed this repeal, through all the Kansas and Nebraska struggles, to the triumph of the then newly organized Republican party in the election of Lincoln in 1860.
1854-1860
- III. The third volume states the immediate effect upon the country of Lincoln's election; covers the period of actual secession; the dramatic opening of the war, the almost light-hearted acceptance of it as a "three-months' picnic"; and closes in the sobering defeat of Bull Run.
1860-1862
- IV. The fourth volume follows the progress of the war in vivid discussions of campaigns, battles, the patient search for the right commander, and the attitude toward this country of the British government and people.
1862-1864
- V. The fifth volume opens with the account of Sherman's march to the sea. The adoption of the Thirteenth Amendment, Lincoln's assassination, Johnson's administration, and the state of society in the North and South at the end of the exhausting war are fully treated. The volume ends with an account of the political campaign of 1866.
1864-1866
- VI. The sixth volume considers the enactment of the Reconstruction Acts and their execution; the impeachment of President Johnson, the rise of the Ku Klux Klan, the operation of the Freedman's Bureau, the ratification of the XIVth and the passage of the XVth Amendment, are among other topics in the volume.
1866-1872
- VII. The seventh volume begins with an account of the Credit Mobilier scandal, the "Salary Grab" Act, and describes the financial panic of 1873. The account of Reconstruction is continued with a careful summing up, and the work ends with an account of the presidential campaign of 1876 and the disputed Presidency.
1872-1877

The set in cloth, \$17.50; half calf or morocco, \$32; three-quarters levant, \$40.

PUBLISHED BY

THE MACMILLAN COMPANY

64-66 Fifth Avenue, New York



UNIVERSITY OF TORONTO
LIBRARY

Do not
remove
the card
from this
Pocket.

Acme Library Card Pocket
Under Pat. "Ref. Index File."
Made by LIBRARY BUREAU

-□

